

KU-RING-GAI COUNCIL LOCAL STRATEGIC PLANNING STATEMENT

DRAFT - JUNE 2019

Contents

Introduction	1
About this Plan.....	2
Statutory framework	2
Community engagement	3
State and regional planning context	3
Local Strategic Planning Statement - policy context	4
How to navigate this plan	5
Strategic context	7
20 year vision.....	11
Summary list of Ku-ring-gai Local Planning Priorities	13
Ku-ring-gai Structure Plan	15
1 - INFRASTRUCTURE AND COLLABORATION	16
Local Infrastructure	16
Collaboration.....	21
2 - LIVEABILITY	23
Housing	23
Map – Housing Supply	35
Local and Neighbourhood Centres.....	36
Gordon Local Centre	39
St Ives Local Centre.....	43
Turramurra Local Centre	46
Turramurra Local Centre Structure Plan.....	56
Lindfield Local Centre	59
Lindfield Local Centre Structure Plan	67
Local Character and Heritage.....	70
Map – Local Character and Heritage.....	77
Community and Cultural Infrastructure.....	78
Map – Community and Cultural Infrastructure	83
Aboriginal Communities and Cultural Heritage	84
Open Space, Recreation and Sport.....	87
Map – Open Space, Recreation and Sport.....	90
3 - PRODUCTIVITY	91
30 Minute City.....	91
Mobility Map – West Gordon	95

Mobility Map – Roseville Chase	96
Mobility Map – St Ives North	97
Map – Public Transport	98
Map - Strategic Road and Rail Network	99
Active Transport – Walking and Cycling Networks	100
Map – Active Transport – Cycle Routes	103
Local Economy and Employment	104
Map – Local Economy and Employment	116
4 - SUSTAINABILITY	117
Open Space Network	117
Map – Open Space Network	121
Map – Ecology	125
Urban Forest.....	126
Map – Urban Vegetation Cover – Tree Canopy.....	131
Green Grid	132
Map – Green Grid	135
Map – Green Grid - Walking.....	136
Water Sensitive City.....	137
Map – Hydrological Grid – Catchment and Riparian Corridors	140
Map – Water Sensitive Urban Design (WSUD)	141
Map – Hydrological Grid.....	142
Energy and Greenhouse Gas Emissions	143
Climate Change Resilience and Adaptation.....	148
Map – Urban Heat Island (UHI) - Summer 2015-2016.....	153
Map – Flood Risk Management.....	154
Implementation	155
Table of Alignment	157

Introduction

In 2018, the NSW Government introduced new plans for both metropolitan Sydney and the northern area of Sydney. These are *A Metropolis of Three cities – The Greater Sydney Region Plan* and the *North District Plan* for the northern councils of Sydney. Ku-ring-gai Local Government Area is part of the North District Plan.

Sydney's district plans recognise the pressures created by Greater Sydney's rapidly growing population, changing demographics, need for housing and better infrastructure.

The district plans require each council to prepare a Local Strategic Planning Statement (LSPS) for their area to guide future land use planning and development.

Ku-ring-gai Council already has a comprehensive suite of land use plans and related policies developed in consultation with residents, community groups, business and government agencies over many years. These are reviewed on a regular basis to ensure they reflect changing social, economic and environmental needs and the priorities of Ku-ring-gai and its community.

One of the roles of this LSPS is to draw together, in one document, the priorities and actions for future land use planning from council's existing land use plans and policies, and to present an overall land use vision for Ku-ring-gai. This will assist in identifying those priorities outside the direct responsibility of council, which require collaboration and partnerships with government agencies and organisations in order to be achieved.

The LSPS will also assist stakeholders, such as government agencies, to understand Ku-ring-gai's future planning needs and better coordinate responses for future infrastructure such as roads and transport, open space and schools.

The LSPS must also respond to the priorities and actions contained in the North District Plan and identify additional investigations and research required to respond to the plan. These important investigations will add to the work Ku-ring-gai Council has already completed, and will ensure well-informed decision-making into the future.

Planning for the future of Ku-ring-gai will need to build upon what is important to the Ku-ring-gai community, such as the natural environment, its biodiversity, the sense of place, the green and leafy nature of our streets and diverse heritage. These attributes are highly valued and the area's future development and change must continue to be well managed so that they are not lost or compromised.

The LSPS provides the opportunity to articulate in one document how council and the Ku-ring-gai community will respond to the challenges presented for land use planning into the future.

Council's Community Strategic Plan, the overarching policy document for Ku-ring-gai, will continue to be utilised as the basis for council's decisions, resource allocation and activity over the next 10 – 20 years. The LSPS, which contains the next level of detail for land use planning in Ku-ring-gai, will both inform and be informed by the Community Strategic Plan.

About this Plan

Ku-ring-gai Council plays an essential policy setting, regulatory and advocacy role that influences how land is used in the Ku-ring-gai local government area. Strategic land use planning across Ku-ring-gai is multilayered, taking into account the social, economic and environmental needs of the community. Decisions often need to balance the competing priorities of the NSW State Government, and the values of the local community.

The Ku-ring-gai Local Strategic Planning Statement (LSPS) brings together significant research, established council policies and community views to set a framework as to how Ku-ring-gai will evolve into the future, while also ensuring that those elements that are special to the character of the area are maintained. The Ku-ring-gai LSPS builds on the community's values and aspirations as expressed through the *Community Strategic Plan - Our Ku-ring-gai 2038*

The Ku-ring-gai Local Strategic Planning Statement sets a road map and strategic direction on how the future vision for Ku-ring-gai can be achieved.

The Ku-ring-gai Local Strategic Planning Statement plans for the Ku-ring-gai community's economic, social and environmental land use needs for the next 20 years.

The purpose of the LSPS is to:

- provide a 20 year vision for land use within Ku-ring-gai
- identify the special characteristics and community values that are to be maintained and enhanced
- outline how growth and change will be managed into the future – such as where future housing, jobs and services will be located and what infrastructure, such as community facilities and open space, will be needed to support future growth
- inform content and provide reasoning for any future changes to planning controls in the Local Environmental Plan (LEP) and Development Control Plan (DCP)
- deliver key state and regional planning objectives identified in the *North District Plan*
- identify where further strategic planning work is required

Statutory framework

Section 3.9 of the *Environmental Planning and Assessment Act 1979* provides the legislative requirements for the preparation and content of Local Strategic Planning Statements of all Councils. At a minimum, a Local Strategic Planning Statement must contain:

- The basis for strategic planning in the area, having regard to economic, social and environmental matters
- Planning priorities that are consistent with the *Greater Sydney Region Plan* and *North District Plan* and Councils *Community Strategic Plan*
- Actions for achieving those priorities
- How Council is to monitor and report on the implementation of the actions.

Once adopted the Ku-ring-gai Local Strategic Planning Statement must be considered as part of the LEP making process (Planning Proposals) , and will form part of the strategic merit test for a Gateway Determination under Section 3.34 of the *Environmental Planning and Assessment Act 1979*.

Community engagement

The Ku-ring-gai Local Strategic Planning Statement has been informed by recent community engagement undertaken by Council, including:

- *Community Strategic Plan* review 2017/2018
- Customer Satisfaction Survey 2017 and 2019
- Phase 1 Community engagement undertaken specifically for the preparation of the LSPS

The Draft Ku-ring-gai Local Strategic Planning Statement will be placed on public exhibition for a minimum of 28 days to allow community feedback on the plan including the vision, planning priorities and actions.

State and regional planning context

Greater Sydney Region Plan – A Metropolis of Three Cities

In 2015, the NSW Government established a new planning body, the Greater Sydney Commission (GSC), to lead metropolitan planning for the Greater Sydney Region.

The plan '*A Metropolis of Three Cities - The Greater Sydney Region Plan*' proposes to re-balance growth across Greater Sydney through better coordinated planning for a more productive, liveable and sustainable metropolitan Sydney.

To assist this objective, the plan has been prepared concurrently with *Future Transport 2056* and the *State Infrastructure Strategy* to align land use, transport and infrastructure planning. The plan aspires to a 30-minute city, where jobs, services, and quality public spaces are in easy reach of people's homes. It also sets targets for new housing, with a range of types, tenures and price points to improve affordability. New jobs will be promoted and the plan values Greater Sydney's unique landscape, natural resources and green infrastructure.

North District Plan

The Greater Sydney Commission established six planning districts in metropolitan Sydney as part of the planning process. The North District comprises the local government areas of Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Northern Beaches, Mosman, North Sydney, Ryde and Willoughby. District Plans sit in the middle of the hierarchy of metropolitan, district and local planning for the Greater Sydney region and inform local council planning and influence the decisions of state agencies.

The *North District Plan* contains four key themes:

- Infrastructure and collaboration
- Liveability
- Productivity
- Sustainability

The *North District Plan* also provides 10 Directions for the future planning:

- A city supported by infrastructure
- A collaborative city
- A city of people
- Housing the city
- A city of great places
- A well-connected city
- Jobs and skills for the city
- A city in its landscape
- An efficient city
- A resilient city

The key planning elements to achieve the vision for the future of the North District include:

- enhancing the role of the Sydney Eastern Economic Corridor, including North Sydney as part of the Harbour CBD
- supporting jobs growth in strategic centres, including health and education precincts and facilitating innovation
- sustaining local centres to provide jobs, services and amenity
- providing fast and efficient transport connections to achieve a 30-minute city
- retaining and managing industrial and urban services land
- creating and renewing great places while protecting heritage and local character and improving places for people
- improving walking and safe cycling ways
- enhancing foreshore access to Sydney Harbour and the district's waterways
- enhancing the quality and improving access to open space, and increasing urban tree canopy
- retaining the environmental, social and economic values of the Metropolitan Rural Areas

Ku-ring-gai's Community Strategic Plan – Our Ku-ring-gai 2038

Ku-ring-gai Council adopted a revised *Community Strategic Plan – Our Ku-ring-gai 2038* in June 2018. The revised plan, developed in consultation with the community, retains the community's long-held vision for Ku-ring-gai as well as the long term objectives of the previous plan.

Vision: Ku-ring-gai is a creative, healthy and liveable place where people respect each other, conserve the magnificent environment and society for the children and grandchildren of the future'

The latest CSP also reflects the priorities reaffirmed by the community for Ku-ring-gai as part of the community engagement for preparation of the plan. Priorities for land use planning include:

- protecting the natural environment
- protecting heritage buildings and historic places
- ensuring high quality urban design for new development
- increasing housing choice
- improving our centres
- improving access and transport
- providing facilities for intergenerational use.

Local Strategic Planning Statement - policy context

The Ku-ring-gai Local Strategic Planning Statement provides a locally relevant response to the NSW Government strategic plans, the *North District Plan*, and the *Greater Sydney Region Plan – A Metropolis of Three Cities*, implementing the directions and actions from these plans at a local level and providing a clear line of sight between the key strategic priorities identified in these plans.

The Ku-ring-gai LSPS is also informed by other state-wide and regional policies including *Future Transport 2056* and the *State Infrastructure Strategy*.

The Ku-ring-gai LSPS is aligned with Council's *Community Strategic Plan - Our Ku-ring-gai 2038*. The *Community Strategic Plan* identifies the priorities and aspirations of the community, and the broader strategic direction of Ku-ring-gai Council to align the delivery of policies, programs, projects and services.

How the Ku-ring-gai LSPS is aligned to the *North District Plan* and *Community Strategic Plan – Our Ku-ring-gai 2038*, is reflected in the **Table of Alignment** at the end of this document.

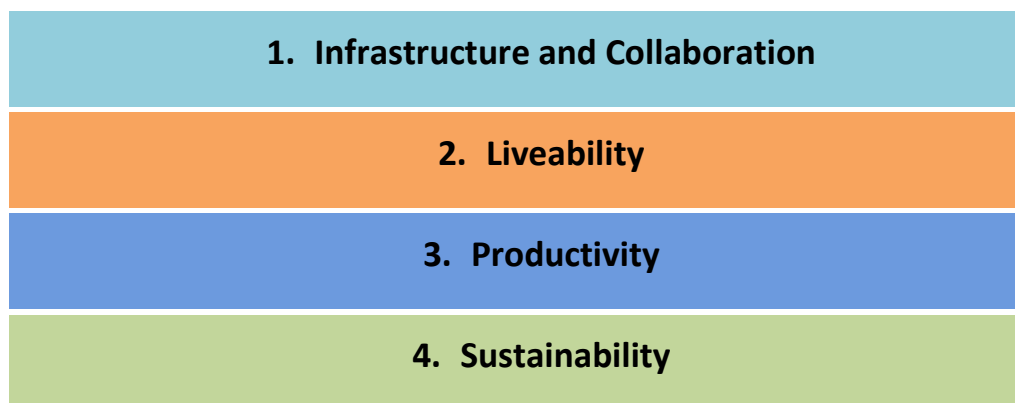


Figure 1 – Hierarchy of Strategic Plans

How to navigate this plan

The Ku-ring-gai LSPS sets out a 20 year vision for the future of Ku-ring-gai, which emphasises the local assets and strategic land use, transport and environmentally planning outcomes. The vision clearly demonstrates how the area will change to meet the community's needs for the next 20 years.

The Ku-ring-gai LSPS has been structured around the 4 **themes** set out in the *North District Plan*, and *Greater Sydney Region Plan*, being:



Each **theme** is colour coded throughout the document. Within each **theme** there are **locally specific matters** which have been identified as key for the future planning of the Ku-ring-gai area.

The **locally specific matters** each have a number of **Ku-ring-gai Local Planning Priorities** (which are the desired outcomes). The **Ku-ring-gai Local Planning Priorities** have been prepared to be consistent with the relevant objectives and planning priorities contain within the *Greater Sydney Region Plan* and *North District Plan*. Each **Ku-ring-gai Local Planning Priority** has Actions which specify how Council will implement each Planning Priority. The aim of the **Planning Priorities and Actions** is to achieve the outcomes described within the 20 year vision

Draft Ku-ring-gai Local Strategic Planning Statement

Each Ku-ring-gai Local Planning Priority provides a ‘**line of sight**’ back to the associated *North District Plan*, and *Greater Sydney Region Plan* Planning Priorities and Objectives.

The Actions are assigned a delivery timeframe for Council to achieve, over the short, medium and long term, as follows:

- **Short – 2 years**
This will align with the required LEP Amendment in 2021 to give effect to the LSPS and *North District Plan*.
- **Medium – 3-5 years**
This will align with the planned first review of the Ku-ring-gai LSPS.
- **Long 10+ years**
- **Ongoing**

The discussion around each Ku-ring-gai Local Planning Priority is structured in the following manner:

- **Background** – to provide an overview of the issue
- **Strategic response** – to set out how Council will be responding to issue

Example

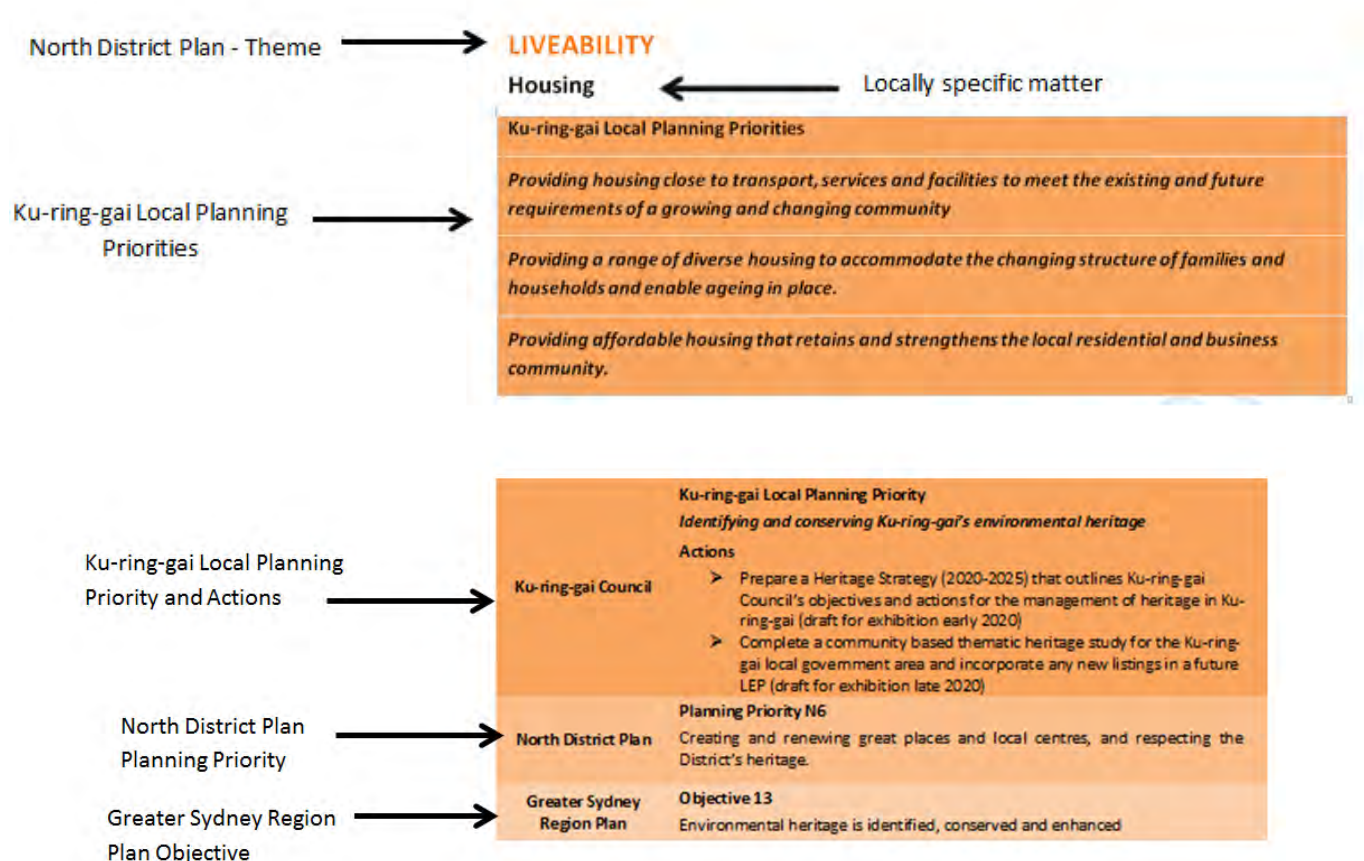


Figure 2 – Example Ku-ring-gai Local Planning Priorities and Actions

Strategic context

Understanding the changing context in which planning is being undertaken in Ku-ring-gai provides a framework for understanding future growth and will help Council develop appropriate strategies to deliver the Planning Priorities for Ku-ring-gai, and the North District Plan.

Regional role

Ku-ring-gai is an established local government area (LGA) 85 square kilometres in size and centrally located in the North District Region, 16 kilometres north of the centre of Sydney CBD. Ku-ring-gai LGA is adjacent to the four local government areas of Willoughby, Ryde, Northern Beaches and Hornsby with the longest boundary interface (18.92km) to Warringah Council.

Ku-ring-gai's urban areas are predominantly residential with Local Centres located along the main north-south rail and road transport corridor. Residential areas are relatively compact and centred around viable local neighbourhood shopping centres and community facilities.

Bus services connect residential suburbs to the north shore rail line and adjoining LGA's. The area is well served by a network of arterial and local roads, however it should be noted that traffic congestion and management¹ is one of the highest priority issues for Ku-ring-gai residents.

Ku-ring-gai makes an important contribution to the Northern Sydney region and broader metropolitan Sydney through a nationally significant ecological environment, state significant heritage, highly skilled workforce and significant employment sectors including education, specialist medical and health care and professional services.

Community profile

Population

The population of Ku-ring-gai has increased by 17% in the 10 years from 2006 to 2016, which is significant growth when compared to the pre-2006 population growth rate. Population growth over the past 5 years has been concentrated in the suburbs of Lindfield, Killara, Gordon and St Ives, which has been driven by an increase in the provision of high density housing along major roads (Pacific Highway and Mona Vale Road) and North Shore rail line.

Ku-ring-gai has a current estimated residential population of 126,046 (ABS, Estimated Resident Population, 2018).

The population of Ku-ring-gai is projected to increase to 154,55 residents by 2036. This is a 25% projected increase from the 2016 population².

Age structure

The median age in Ku-ring-gai is 41 years³. The Ku-ring-gai population is changing, with peaks in the population within the young age groups and seniors 65+.

Projected growth in key age groups – Ku-ring-gai		
Age Group	2016*	Projected 2036**
0 - 9 years	14,658	18,200
10 - 24 years	25,138	33,550
65 - 74 years	10,515	14,600
Over 75 years	10,941	17,700

Figure 3 – Projected growth in key age groups – Ku-ring-gai

* Source: ABS, 2017

** Source: Department of Planning and Environment – NSW Population Projections Data

¹ Ku-ring-gai Community Satisfaction Survey 2019

² Department of Planning and Environment – NSW Population Projections

³ ABS, 2017

Migration into Ku-ring-gai LGA

Ku-ring-gai's population is increasingly culturally and linguistically diverse. Approximately 39% of Ku-ring-gai residents in 2016 were born overseas, compared to 33% in 2006⁴. The top 5 countries of birth being:

- China
- United Kingdom
- South Africa
- Hong Kong
- South Korea

Of these residents, 25% are from non-English speaking countries. The main languages other than English spoken at home include Mandarin, Cantonese, Korean, Persian and Japanese⁵.

New residents migrating to Ku-ring-gai ring are mostly arriving from elsewhere in Australia, 31.2% while migration from overseas only accounts for 8.6% of new arrivals to Ku-ring-gai.⁶

Education and employment

The Ku-ring-gai population contains predominantly high income households, and residents are highly educated.

- 52% of households have a high income⁷
- 47.9% of the population aged 15 years and over are university educated⁸
- 61% of the population is employed or looking for work⁹

Economic profile

The Ku-ring-gai LGA contributes \$6.40 billion or 1.15% to the Gross Regional Product (GRP) of NSW (Australian Bureau of Statistics, 2017). This is facilitated by a diverse local economy comprising:

- 38,052 local jobs¹⁰
- 14,436 local businesses¹¹
- Seven Local Centres providing mixed food, retail and professional services
- A business park accommodating commercial and service activities
- A large education sector, both public and private schools
- A large medical and health care sector including two hospitals
- Highly educated workforce mostly in professional, scientific and technical service industries
- A thriving small and medium size business sector, and a
- Growing home business sector.

Key assets, challenges and opportunities

Natural environment and biodiversity

The area adjoins three National Parks (Ku-ring-gai Chase, Garigal and Lane Cove) and contains significant urban forests and tracts of local bushland as well as a visually significant tree canopy across both natural and urban areas. These landscape features give the area distinctive natural beauty and differentiates Ku-ring-gai from other parts of Sydney.

Ku-ring-gai contains a diverse natural habitat and areas of biodiversity significance, including:

⁴ Department of Planning and Environment – Community Profile Tool

⁵ Department of Planning and Environment – Community Profile Tool

⁶ Profile Id

⁷ Department of Planning and Environment – Demography and Housing Dashboard

⁸ ABS, 2016

⁹ Department of Planning and Environment – Community Profile Tool

¹⁰ National Institute of Economic and Industry Research, 2018

¹¹ Australian Bureau of Statistics, 2017

- nationally significant ecological communities - includes remnant Blue Gum High Forest and Sydney Turpentine Ironbark Forest
- over 800 recorded native plant species and more than 400 species of native animals
- a 99 hectare bio-banking site comprising three reserves at Rofo Park, Sheldon Forest and Comenarra Creek Reserve.

Aboriginal and built heritage

Aboriginal heritage - The Ku-ring-gai Local Government Area (LGA) contains 101 recorded Aboriginal sites in the LGA, however it is believed at least double that number remain. The majority of the sites are located in bushland reserves; whilst others are within private land.

Built heritage - Ku-ring-gai is the birthplace of the National Trust of Australia (NSW,) and the Council continues to value its significant built and natural heritage through heritage programs and policies to identify and protect Ku-ring-gai's heritage.

Urban environment

Ku-ring-gai has a focus on preserving the residential character, landscape and heritage characteristics of the area as these are highly valued by the community. This is reflected in Ku-ring-gai's overarching *Community Strategic Plan –Our Ku-ring-gai 2038*, other Integrated Planning documents, LEPs, DCPs and policies as well as the delivery of program initiatives and projects

Ku-ring-gai's unique planning controls provide a framework by which local land use planning can be undertaken, and there is a priority for development to achieve high quality design outcomes.

The high standard of development in the Ku-ring-gai area has been recognised through several design awards and commendations by the Australian Institute of Architects (AIA) and the Urban Development Institute of Australia (UDIA). Award winning policies such as *Thinking outside the Box* and the *Ku-ring-gai Open Space Strategy and Open Space Acquisition Strategy* demonstrate innovative approaches to managing urban growth, underpin the existing historical and traditional values of Ku-ring-gai.

Council's challenge will be to plan for a more diverse and affordable range of housing and growth of the centres, while protecting and enhancing the visual landscape, heritage and built characteristics of Ku-ring-gai which are highly valued by the community.

Public transport and road network

In comparison to some other areas of Sydney, Ku-ring-gai is generally well served by public transport, with the rail line running through the central spine of the council area and bus services radiating out to residential areas. Ku-ring-gai, because of its proximity to the Sydney CBD and middle-ring location is also well served by the commuter bus services to the City CBD, Macquarie Centre, the northern beaches (Terrey Hills/Mona Vale, and Belrose/Frenchs Forest/Brookvale), Chatswood, Hornsby and Thornleigh (via SAN hospital). Feedback from the community has expressed the need for improved access and mobility within Ku-ring-gai, as well as to, from and within the Local Centres and railway stations.

Council's local road network needs to be managed effectively, particularly with further population growth. This is required to reduce congestion, particularly around Local Centres and to maximise the efficiency of parking, as well as improving safety and accessibility for pedestrians, cyclists and motorists.

Council's challenge will be to continue to provide a better integrated and accessible pedestrian and transport network with improved access for residents and flexible transport options and efficient support infrastructure that cater for the needs of a growing community.

Local Centres

Ku-ring-gai's Local Centres are a key component of the local economy and provide a diverse mix of office and retail uses, support services and community facilities. They also act as a focus for public transport and

road connections. In recent years, the higher density residential development surrounding the centres has strengthened their role.

Open space

Ku-ring-gai has a generous supply of environmentally significant open space; with National Parks and Council-managed reserves constituting the majority of Ku-ring-gai's greenspace. While these areas are a valuable resource, they do not fulfil all the open space needs of residents as they are not accessible to all members of the community and recreation potential is limited due to topography and environmental sensitivities. Council's challenge will be to continue to plan and provide access to a range of open spaces to meet the recreation and leisure needs of the community.

20 year vision

Strategically located in the heart of Sydney's North District, Ku-ring-gai is an area of socially connected, healthy, sustainable communities that support vibrant local centres, live in harmony with the unique natural environment, and conserve our local assets for future generations.

Our local assets

- **Our strategic regional role**

- Our nationally significant environmental and biodiversity assets and significant built heritage is conserved and enhanced for the benefit of the Ku-ring-gai community and wider Sydney region;
- Our leading practice local government policy planning and delivery, a highly skilled workforce and significant employment sectors in education, specialist medical and health care, and professional services are maintain and developed;
- District and regional connections are improved and expanded through a range of integrated transport and infrastructure choices that enable effective movement to, from and within Ku-ring-gai.

- **Our supporting infrastructure**

- Connected, integrated and accessible transport networks service all areas of the LGA, and provide links to strategic centres, employment areas and the Sydney CBD;
- Growth and change is supported by well-planned and sustainable infrastructure including community facilities, urban green infrastructure (sporting and recreation facilities, open space) roads, drains and footpaths.

- **Our connected urban villages**

- Our well-connected centres and villages are revitalised with high quality urban spaces, community hubs and other social infrastructure so they are places where people choose to live, work, shop, meet and spend leisure time;
- Increased housing is provided that is diverse, adaptable and affordable, catering for the needs of a growing and changing community;
- New housing is located and integrated to contribute to the area's existing and future landscape character, streetscapes and locality features.

- **Our unique landscape qualities**

- Our area's defining landscape character, centred on the distinct topography, bushland and natural landscape is conserved;
- The built environment exists in a context of established indigenous and exotic vegetation interspersed with areas of remnant forest;
- The urban forest (including tree canopy) is protected and enhanced.

- **Our cultural history and diversity**

- Our diverse indigenous and non-indigenous cultural heritage is conserved and celebrated;
- Our built and landscape heritage, including bushland reserves, parklands and recreation areas, are protected and conserved;
- Aboriginal peoples' spiritual and cultural values and their association with the conservation of remnant landscapes and natural systems is recognised and respected.






- **Our diverse local economy**

- A diverse, thriving local economy that promotes economic growth, tourism, innovation and technology is cultivated and supported by vibrant centres that are attractive, accessible and well-connected;
- Our tourism sector is established based around natural and cultural heritage components, and other major events at the St Ives Precinct.

- **Our significant natural environment**

- Our significant natural environment assets including bushland reserves, nationally significant ecological communities, threatened flora and fauna and surrounding National Parks are healthy and resilient to threats;
- Our significant natural environment is valued and protected for its crucial contribution to present and future generations into the future.

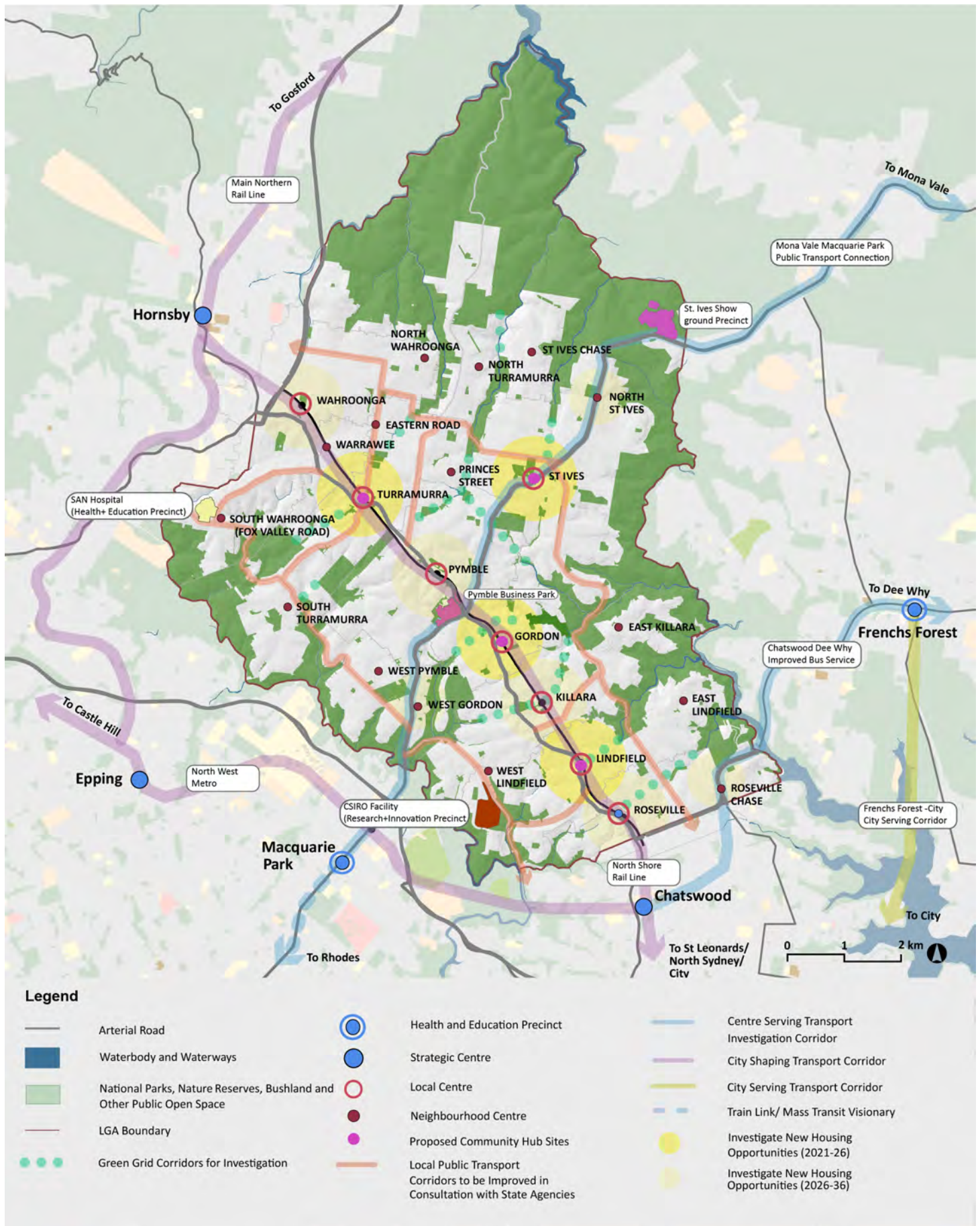
Summary list of Ku-ring-gai Local Planning Priorities

North District Plan Direction	Infrastructure and Collaboration		Liveability		
	A city supported by infrastructure 	A collaborative city 	Housing the city 	A city of great places 	A city for people 
Ku-ring-gai Local Planning Priorities	LOCAL INFRASTRUCTURE K1. Providing well-planned and sustainable local infrastructure to support growth and change	COLLABORATION K2. Collaborating with State Government Agencies, Councils and the community to deliver infrastructure projects	HOUSING K3. Providing housing close to transport, services and facilities to meet the existing and future requirements of a growing and changing community K4. Providing a range of diverse housing to accommodate the changing structure of families and households and enable ageing in place K5. Providing affordable housing that retains and strengthens the local residential and business community	LOCAL AND NEIGHBOURHOOD CENTRES K6. Revitalising and growing a network of centres that offer unique character and lifestyle for local residents K7. Facilitating mixed-use developments within the centres that achieve urban design excellence K8. Promoting Gordon as the centre for business and civic functions as the cultural heart of Ku-ring-gai K9. Promoting St Ives as an active green lifestyle and shopping destination K10. Promoting Turramurra as a family-focused urban village K11. Promoting Lindfield as a thriving and diverse centre LOCAL CHARACTER AND HERITAGE K12. Managing change and growth in a way that conserves and enhances Ku-ring-gai's unique visual and landscape character K13. Identifying and conserving Ku-ring-gai's environmental heritage ABORIGINAL COMMUNITIES AND CULTURAL HERITAGE K16. Protecting, conserving and managing Ku-ring-gai's Aboriginal heritage assets, items and significant places	COMMUNITY AND CULTURAL INFRASTRUCTURE K14. Providing a range of cultural, community and leisure facilities to foster a healthy, creative, culturally rich and socially connected Ku-ring-gai ABORIGINAL COMMUNITIES AND CULTURAL HERITAGE K15. Strengthening recognition and support for Aboriginal communities and cultural heritage OPEN SPACE, RECREATION AND SPORT K17. Providing a broad range of open spaces, sporting and leisure facilities to meet the communities diverse and changing needs K18. Ensuring recreational activities in natural areas are conducted in harmony with the local environment and within ecological limits K19. Providing well maintained, connected, accessible and highly valued trail networks and recreational infrastructure where locals and visitors enjoy and connect with nature K20. Developing and managing a network of sporting assets that best meets the needs of a growing and changing community

Summary list of Ku-ring-gai Local Planning Priorities

Productivity		Sustainability		
A well connected city	Jobs and skills for the city	A city in its landscape	An efficient city	A resilient city
				
30 MINUTE CITY K21. Prioritising new development and housing in locations that enable 30minute access to key Strategic Centres K22. Providing improved and expanded district and regional connections through a range of integrated transport and infrastructure to enable effective movement to, from and within Ku-ring-gai ACTIVE TRANSPORT - WALKING AND CYCLING NETWORKS K23. Providing safe and convenient walking and cycling networks within Ku-ring-gai	LOCAL ECONOMY AND EMPLOYMENT K24. Diversifying Ku-ring-gai's local economy through the expansion of tourism and the local visitor economy K25. Providing for the retail and commercial needs of the local community within Ku-ring-gai's centres K26. Fostering a strong local economy that provides future employment opportunities for both residents and workers within key industries	OPEN SPACE NETWORK K27. Ensuring the provision of sufficient open space to meet the need of a growing and changing community BUSHLAND AND BIODIVERSITY K28. Improving the condition of Ku-ring-gai's bushland and protecting native terrestrial and aquatic flora and fauna and their habitats. K29. Enhancing the biodiversity values and ecosystem function services of Ku-ring-gai's natural assets URBAN FOREST K30. Improving the quality and diversity of Ku-ring-gai's urban forest K31. Increasing, managing and protecting Ku-ring-gai's urban tree canopy GREEN GRID K32. Protecting and improving Green Grid connection K33. Providing a network of walking and cycling links for leisure and recreation K34. Improving connections with natural areas including river and creek corridors, bushland and National Parks WATER SENSITIVE CITY K35. Protecting and improving the health of waterways and riparian areas K36. Enhancing the liveability of Ku-ring-gai's urban environment through integrated water infrastructure and landscaping solutions K37. Enabling water resource recovery through the capture, storage and reuse of water, alternative water supplies and increased water efficiency	ENERGY AND GREENHOUSE GAS EMISSIONS K38. Reducing Council's and the Ku-ring-gai community's greenhouse gas emissions to achieve net zero emissions by 2045 or earlier	CLIMATE CHANGE RESILIENCE AND ADAPTATION K39. Reducing Councils, the community's and the natural and built environment's vulnerability and increase its resilience to the impacts of climate change K40. Increasing urban tree canopy and water in the landscape to mitigate the urban heat island effect and create greener, cooler places

Ku-ring-gai Structure Plan



1 - INFRASTRUCTURE AND COLLABORATION

Local Infrastructure

Ku-ring-gai Local Planning Priority

K1. Providing well-planned and sustainable local infrastructure to support growth and change

Background

Since 2006 Ku-ring-gai has seen an increase in population from 105,000 to a current estimated resident population of 126,000 (2018 ERP). With population growth, there is an increasing demand for new and enhanced assets and services. Funding shortfalls for infrastructure asset renewal is a well-documented problem facing local government.

Council spends in the range of \$14 to 18 million (excluding the Local Centre Major Projects) each year on upgrading and creating new assets. In the past this has predominantly been funded through development contributions, though, through necessity, Council is now looking for a broader range of funding sources to allow it to provide the increasing range of facilities and services that its growing population requires. Further, these new assets will themselves require maintenance and renewal in future years, putting additional pressure on Council's infrastructure backlog. As Ku-ring-gai's population increases and changes, including increased cultural diversity and older ages groups, there will be additional competing demands for services, programs and access to community facilities and infrastructure.

Council's ability to align funding with expenditure is restrained by 'rate pegging', which means that the annual increase in rating revenue is determined by an external body, namely the Independent Pricing and Regulatory Tribunal (IPART). Over half of Council's income is dependent on rates. In 2014 following extensive community consultation, Council successfully obtained a continuation of the Special Rate Variation (SRV) for Infrastructure in perpetuity. A resounding 81% of ratepayers supported continuing the SRV for local roads improvements.

Council staff have undertaken significant work formulating new funding strategies and renewal and maintenance programs to achieve further reductions in Council's infrastructure backlog. The strategies and how Council proposes to fund these programs are detailed in its Long Term Financial Plan and Asset Management Strategy.

Council is currently delivering community facilities, open space and local road infrastructure to support current planned levels of redevelopment. Additional growth will require additional local infrastructure. Local infrastructure projects currently being delivered or planned include:

- Lindfield Village Green - a new urban park in the heart of Lindfield including public and commuter parking below;
- Lindfield Village Hub - a new library, community centre and public park delivered by a development partner as part of a mixed use development;
- Turramurra Community Hub - a new library, community centre and public park delivered by development partner as part of mixed use development;
- St Ives Community Hub - a new library, community centre and town square delivered by development partner as part of a mixed use development;
- Gordon Cultural and Civic Centre – a new cultural centre and council chambers in the heart of Gordon delivered by development partner as part of a mixed use development;
- Renovation of Marian Street Theatre - a new hub for drama in Killara;
- St Ives Showground Precinct – an outdoor entertainment and tourism destination including regional playground;
- St Ives Village Green – a new recreation precinct including a skate bowl and plaza and playground;

- Streetscape upgrades – a program widening of footpaths, outdoor dining and street trees across the Local Centres;
- St Ives High School - a new indoor sports facility jointly delivered by Council and Department of Education;
- Local parks – a number of new parks delivered through council's acquisition program; and
- Sports fields and facilities – ongoing upgrades to Council's assets.

It is noted that many of these projects will only proceed if new funding streams, including asset recycling, are available.

Sports and recreation infrastructure

The Ku-ring-gai local government area has approximately 300 hectares of developed open space with facilities for a wide spectrum of sport, recreation and leisure facilities. The pressure on Council's existing sporting and recreation facilities is high, and there are insufficient facilities to meet current and anticipated future demands.

Since 2010 The Ku-ring-gai Contributions Plan, 2010 (KCP) - Local parks, Local sporting facilities has funded a rolling program of major upgrades to Council's sports fields.

During the same period Council has also delivered:

- a new artificial turf sports field in Lindfield through a Voluntary Planning Agreement (VPA) with a developer; and
- new multi-use sports fields in North Turramurra by reconfiguring an existing council-owned golf course.

Further details of Council's planning for sports and recreation infrastructure are contained under Planning Priorities K17, K18 and K19.

Local parks

Since 2010 Council has been actively acquiring land and converting the land to new parks. To date Council has created, or is in the process of creating, over 23,000sqm of new parks and civic spaces. At this point in time Council is just over halfway through the rolling delivery program under the Ku-ring-gai Contributions Plan, 2010 (KCP) - Local parks, Local sporting facilities; this plan has been supporting the delivery of local open space and generally funds 100% of the cost of land acquisition and embellishment.

The plan also allows for innovative delivery and funding mechanisms, an example is the Lindfield Village Green which will be built on a Council car park. In this case development contributions will be used to fund the construction of a basement car park to replace the surface parking thereby freeing the surface for a new use as a park. In this case a test is applied to ensure the money spent on a car park is not more than the cost of acquiring land in a similar location.

Further details of Council's planning for local parks are contained under Planning Priority K27.

Community and cultural facilities

Council provides a range of buildings and facilities that are available for the community for long term lease or for casual or permanent hire. The utilisation rate for these halls, meeting rooms and other community facilities is already high and many of the buildings are not fit-for-purpose. Council is actively planning for a network of new and upgraded facilities to cater for the needs of the current and future community.

The Ku-ring-gai Contributions Plan, 2010 - Local Recreational and Cultural Facilities, and Local Social Facilities allocates funding for the capital costs of new multi-purpose community buildings and libraries in the Local Centres. Due to apportionment, only a portion of the cost of community buildings is funded by development contributions, and operational costs are not covered by development contributions. Council has developed an innovative funding mechanism to address the funding shortfall by combining the

community buildings into mixed-use 'hub' projects whereby the shortfall will be funded by residential/commercial development delivered by a development partner.

Further details of Council's planning for Community and Cultural infrastructure are contained under Planning Priority K14.

Local centre streetscape

Ku-ring-gai Contributions Plan, 2010 (KCP) - Works Programmes: Local roads; Local bus facilities and Local drainage facilities allocates funding for works to streets that form part of the Local Centres; works include new footpaths, street furniture, street trees, pedestrian and street lighting and underground powerlines. The work also includes road works such as road widening, intersection improvements and changes to traffic signals. This work is generally fully funded by development contributions.

Council has commenced a program under 'Activate Ku-ring-gai' to upgrade key streets in the Local Centres, the first of these will be St Johns Avenue, Gordon; followed by Rohini Street, Turramurra and Lindfield Avenue and the Pacific Highway, Lindfield.

Local road and associated infrastructure

Ku-ring-gai's local and regional road network needs to be managed effectively to reduce congestion, particularly around Local Centres, to maximise the efficiency of parking and to improve safety and accessibility for pedestrians, cyclists and motorists.

Council is working with stakeholders to make improvements to the network. This includes proactively seeking grant funding for eligible sites through both federal and state road improvement programs; and preparing detailed Transport Management Plans for each of the Local Centres. The Lindfield Community Hub, Lindfield Village Green and Turramurra Community Hub major projects will also involve improvements to the Pacific Highway and nearby local roads.

Ku-ring-gai Council's infrastructure assets represent a vast investment that supports a modern urban environment. Over recent years, Council has delivered an expanded asset renewal program to continue to 'close the gap' on Ku-ring-gai's infrastructure renewal backlog. Over the four year period 2013 – 2017 this expenditure has included \$35.6 million on roadwork upgrades, \$2.7 million on new and upgraded footpaths, \$1.9 million on stormwater drainage and \$302,883 on new and upgraded traffic facilities (including grants).

Asset management

The approach of asset renewal will assist Council to fund specific civic and community projects through the sale of under-utilised or surplus assets (property). These projects are intent on delivering new civic and community assets and infrastructure either through the acquisition and development of new facilities and/or through Council's co-contribution to deliver facilities and infrastructure identified in the Ku-ring-gai Contributions Plan 2010. The Contributions Plan works program for the next 10 years requires a co-contribution from Council of \$11 million which has been included in the LTFP.

The reasoning for Council to divest of these assets is to ensure that Council meets the future needs of the community by providing purpose built facilities and maintaining financial sustainability. The LTFP identifies asset sales as a short, medium and long term funding strategy which relies in part on the future reclassification of land from Community to Operational. This relies on a collaborative approach with State Government in negotiating a path through the planning process which has not always yielded outcomes which Council considers fair, timely, or transparent.

Further, where Council plans large scale "community hub" type projects such as the Lindfield Village Green, the Community Hubs in Lindfield and Turramurra, and the Gordon Civic Precinct it is expected that these projects should be commercially feasible in their own right such that they do not require long term borrowings, or be a drain on ordinary rates revenue. Further, where feasible, such projects will be expected to produce a market dividend for Council above and beyond the community facilities incorporated in the

precinct. Planning for these projects will consider the inclusion of commercial opportunities of sufficient return to cover ongoing operational costs of the public spaces in the precinct.

As part of its planning for the new hubs, Council has undertaken extensive planning for the provision of new community facilities, including preparation of the *Ku-ring-gai Community Facilities Strategy – Part 1 – Community Centres and Libraries, 2018*. This strategy acknowledges the need to rationalise existing facilities as they are transferred into civic hub projects.

Strategic response

The development contributions system remains a critical component of a wider funding strategy to deliver new and upgraded infrastructure to support development and the growing and changing demographics of the area.

The *Ku-ring-gai Contributions Plan 2010* will require review to extend the current delivery program to accommodate additional population growth through to 2036 in-line with the *North District Plan*. In the meantime the rolling delivery program under the current *Contributions Plan* will continue.

Ku-ring-gai Contributions Plan 2010 benefits from an exemption to the s94E Direction that would otherwise cap the contributions in the Local Centres areas. The additional funding that has been created by this exemption has been vital to Council's delivery of community facilities and its award winning open space acquisition program. Transitioning to a new contributions plan would require Council to maintain an exemption from any contributions capping to ensure the same level of infrastructure delivery can be maintained. The loss of the exemption would also put at risk the funding of the current works program at a critical stage of delivery

As part of the review Council will liaise with the NSW State Government to address the issue of maintaining the cap exemption and the absence of community facilities from the 'Essential Works List' whilst noting the challenge this situation imposes on the review of Ku-ring-gai's current contributions plan.

Ku-ring-gai also has a current *S7.12 Ku-ring-gai Contributions Plan 2015* (formerly s94A) which applies to different development types and supports a separate works programme. It will also be concurrently reviewed to ensure it provides for a distinct works programme relevant to the types of development that contribute under this plan.

Council will continue to utilise Asset Recycling, being the sale of underperforming or surplus assets, and return the capital to invest in new assets or to revitalise existing assets. Council will also engage with the State Government to underscore the importance of asset recycling in Council's ambitious Local Centre revitalisation and asset renewal program, to ensure that fair, timely, and transparent outcomes are obtained in the rezoning and reclassification of surplus and underutilised land. Council will also continue to investigate and develop innovative funding mechanisms for the delivery of local infrastructure.

The current strategic planning focus provides the opportunity to research, support and address a key need in Ku-ring-gai for affordable housing, particularly key worker housing and housing for people with a strong connection to the area that may experience significant changes in circumstance.

<p>Ku-ring-gai Council</p>	<p>Ku-ring-gai Local Planning Priority</p> <p><i>K1. Providing well-planned and sustainable infrastructure to support growth and change</i></p> <p>Actions</p> <ul style="list-style-type: none"> ➤ Continue to utilise Asset Recycling to invest in new assets or to revitalise existing assets. <i>(ongoing)</i> ➤ Engage with the State Government to underscore the importance of asset recycling in Council's Local Centre revitalisation and asset renewal program, to ensure that fair, timely, and transparent outcomes are obtained in the rezoning and reclassification of surplus and underutilised land. <i>(short term)</i> ➤ Review and update Council's S7.11 <i>Contributions Plan 2010 (formerly s94)</i> and S7.12 <i>Contributions Plan 2015 (formerly s94A)</i> to ensure the delivery of new infrastructure is aligned with forecasted growth in Ku-ring-gai <i>(short term)</i> ➤ Liaise with the State Government to address the issue of maintaining an exemption from the cap on development contributions and on the absence of community facilities from the 'Essential Works List' <i>(short term)</i> ➤ Investigate the development of an Affordable Housing Contributions Plan under Section 7.2 of the EP&A Act. <i>(short-medium term)</i> ➤ Investigate and develop innovative funding mechanisms for the delivery of local infrastructure <i>(ongoing)</i> ➤ Continue to deliver the rolling delivery program under Council's 2010 S7.11 <i>Contributions Plan and 2015 S7.12 Contributions Plan (short-medium term)</i>
<p>North District Plan</p>	<p>Planning Priority N1</p> <p>Planning for a city supported by infrastructure</p>
<p>Greater Sydney Region Plan</p>	<p>Objective 1</p> <p>Infrastructure supports the three cities</p> <p>Objective 2</p> <p>Infrastructure aligns with forecast growth</p> <p>Objective 3</p> <p>Infrastructure adapts to meet future needs</p> <p>Objective 4</p> <p>Infrastructure use is optimised</p>

Collaboration

Ku-ring-gai Local Planning Priority

K2. Collaborating with State Government Agencies and the community to deliver infrastructure projects

Background

Collaboration between local and state governments and across State Agencies is essential for coordinating land use and infrastructure planning and delivery within Ku-ring-gai and the North District. Collaboration is particularly important as the population grows, and Council is required to manage the competing needs of the growing and changing community within limited budgets.

Engagement with the community and key stakeholders is central to all collaborative processes and requires all levels of government and the community to work together.

Council is actively collaborating with governments, community and business to develop new infrastructure. Recent examples include working with:

- Transport for NSW to deliver a new integrated bus interchange and commuter car park in Gordon Local Centre;
- Transport for NSW to deliver up to 240 new commuter car spaces integrated within the Council-lead Lindfield Village Green and Lindfield Village Hub projects;
- Department of Planning to develop the redundant B2 road corridor in South Turramurra;
- Roads and Maritime Services to develop Transport Management Plans for Gordon, Lindfield and Turramurra Local Centres;
- Sydney Trains in Turramurra Local Centre to release rail corridor land for public open space;
- State sporting organisations to investigate opportunities for new and/or improved sports facilities and/or joint use of school sportsgrounds;
- Transport for NSW, Roads & Maritime Services and National Parks to progress the Browns Waterhole crossing upgrade of the Lane Cove River;
- Department of Education to deliver a new indoor sport facility on the grounds of St Ives High School.

Strategic response

Moving forward Council will seek to establish and maintain collaborative relationships across all levels of government, as well as our community and stakeholders to deliver long term and sustainable infrastructure; ensure the best use of resources; and deliver the best outcomes for the community.

The following are identified as opportunities where planning collaborations and partnerships will be vital to the delivery of Council's priorities in the future:

- Working with market-leading development partners to deliver community infrastructure as part of the Lindfield, Turramurra, Gordon and St Ives Community Hubs;
- Collaborating with Transport for NSW to identify opportunities for development over the rail line within the Local Centres;
- Working with Transport for NSW, Northern Beaches Council, City of Ryde and Willoughby City Council to accelerate the delivery of infrastructure identified in *Future Transport 2056* particularly the Mona Vale to Macquarie Park, and Dee Why to Chatswood Bus Rapid Transit corridors;
- Working with Transport for NSW to develop a Movement and Place Framework within Local Centres to protect the amenity and quality of places;
- Working with Transport for NSW to improve local access to rail stations through improved local bus services and/or on-demand buses (eg. Keoride)

- Collaborating with the Greater Sydney Commission and other relevant state agencies and statutory authorities to deliver Green Grid connections and corridors;
- Collaborating with Transport for NSW, Sydney Trains, National Parks and other relevant state agencies and statutory authorities to identify and deliver components of the Principal Bicycle Network;
- Working with NSROC and member councils, Office of Sport and other state government agencies to develop strategic region-wide solutions to delivery of sport and recreation facilities.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priority <i>K2. To collaborate with State Government Agencies and the community to deliver infrastructure projects</i>
	Actions <ul style="list-style-type: none"> ➤ Progress partnership with Department of Education to deliver St Ives High School Joint Use Indoor Sports Facility (<i>short term</i>) ➤ Secure development partners for Lindfield Village Hub and Turramurra Community Hub (<i>short-medium term</i>) ➤ Develop 'Movement and Place' framework for the primary Local Centres in collaboration with TfNSW/RMS (<i>short-medium term</i>) ➤ Collaborate with TfNSW/RMS, adjoining Council's and relevant state agencies and statutory authorities to improve regional and local transport links particularly buses, cycling and walking (<i>ongoing</i>) ➤ Continue to work with State sporting organisations to investigate opportunities for new and/or improved sports facilities (<i>ongoing</i>) ➤ Continue to work with Department of Education to investigate joint use of school sportsgrounds (<i>ongoing</i>)
North District Plan	Planning Priority N2 Working through collaboration
Greater Sydney Region Plan	Objective 5 Benefits of growth realised by collaboration of governments, community and business

2 - LIVEABILITY

Housing

Ku-ring-gai Local Planning Priorities

K3. Providing housing close to transport, services and facilities to meet the existing and future requirements of a growing and changing community

K4. Providing a range of diverse housing to accommodate the changing structure of families and households and enable ageing in place.

K5. Providing affordable housing that retains and strengthens the local residential and business community.

Background

Ku-ring-gai has historically been a predominantly low density residential area comprising detached dwellings on sizeable lots and limited numbers of medium and high density housing types concentrated in areas with high transport and service provision. This pattern of development has been a fundamental element in the establishment of the area's prevailing character of buildings within garden settings including tall canopy trees.

Following a period of slow growth prior to 2006, Ku-ring-gai experienced a significant 18% (+19,050 people) population growth during the 2006-2016 decade, bringing the estimated resident population to a total of 123,500 residents. Currently, Ku-ring-gai's estimated resident population is 126,046 (ABS ERP 2018).

During 2006-2016, Ku-ring-gai saw an increase in medium and high density dwelling provision with apartment and townhouse dwellings continuing to be clustered around existing Centres of retail activity, and at locations along the train line (T1 North Shore) and major roads (Pacific Highway and Mona Vale Road).

The 2016 Census showed that even with the growth that has occurred within Ku-ring-gai, low density detached dwellings remain the dominant housing type, comprising nearly three quarters of homes, and medium and high density dwellings forming a combined quarter of the area's housing.

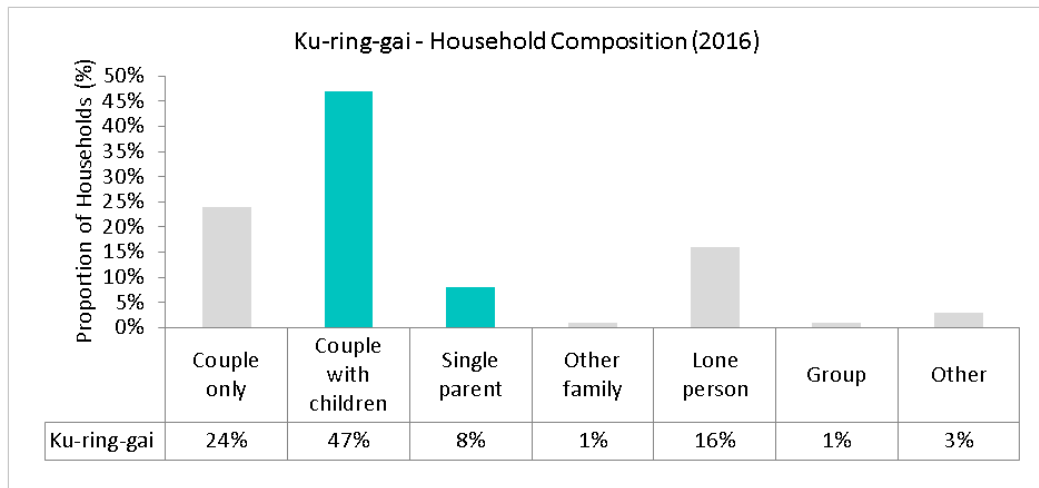
COMPOSITION OF DWELLING TYPE – KU-RING-GAI 2016		
Dwellings by Housing type	Dwellings	Percentage
High density - apartments with four or more storeys	6,197	14.63%
Medium density - terraces, townhouses and apartments up to three storeys	5,403	12.75%
Low density - detached house	30,721	72.51%
Other - caravans, cabins, houseboats, improvised homes, tents, sleepers out, house or flat attached to shop, office or house	46	0.11%
Total Dwellings	42,321	
Source: Australia Bureau of Statistics 2016, <i>Dwelling Structure by LGA - Ku-ring-gai (A)</i> (Accessed May 2019), TableBuilder.		
Note: ABS counts listed as 'not stated' and 'not applicable' have not been included in this data display		

Figure 2-1 Composition of Dwelling Type – Ku-ring-gai 2016

Housing profile

Ku-ring-gai's demographic data displays the following key housing characteristics:-

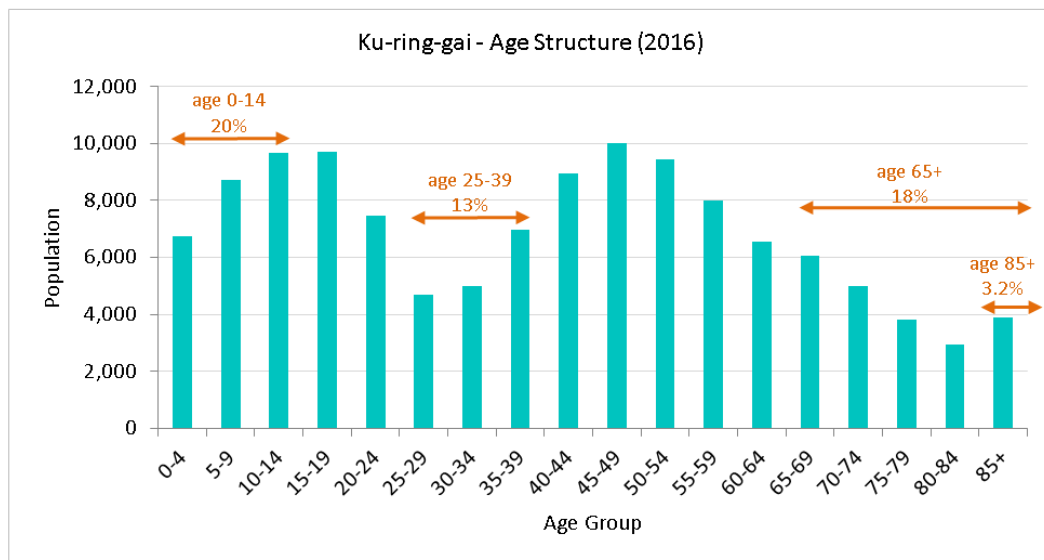
- A predominance of family households with school age children.
 - 55% of households in Ku-ring-gai are family households with children.



Source: Department of Planning & Environment – Community Profile Tool

Figure 2-2 Ku-ring-gai Household Composition 2016

- Children aged 0-14 years make up 20.3% of the population.

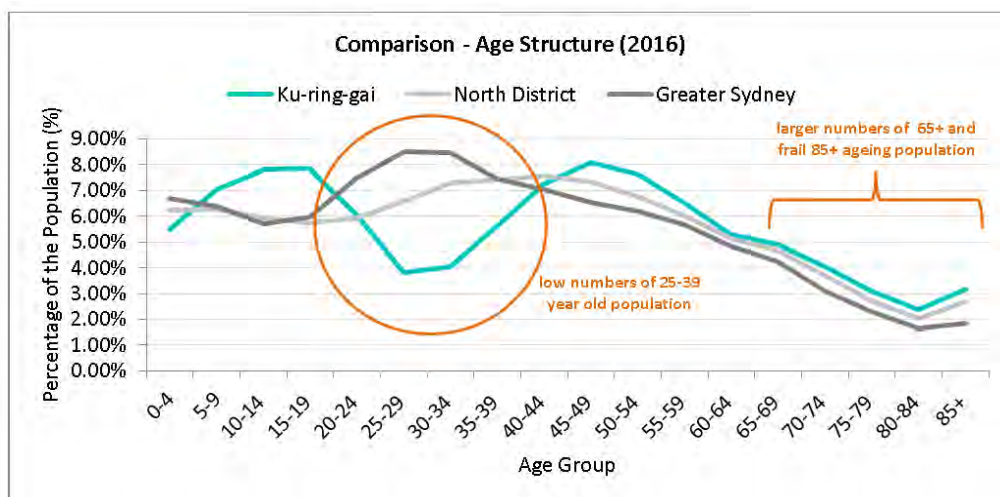


Source: Department of Planning and Environment – Community Profile Tool

Figure 2-3 Ku-ring-gai Age Structure (2016)

- Low numbers of 25-39 year olds.
 - People aged 25-39 make up only 13% of the Ku-ring-gai population, a lower proportion than the North District (21%) and Greater Sydney (24%).

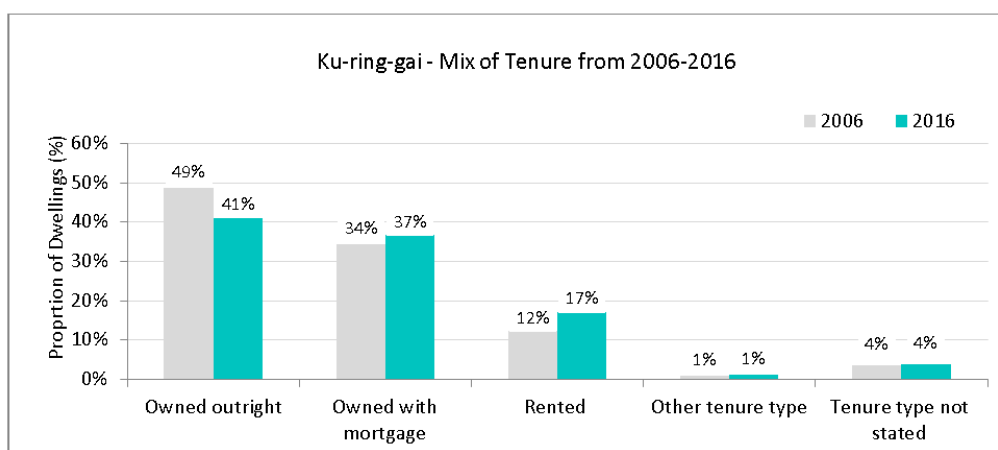
- A high active 65+ and frail 85+ ageing population as compared to the North District and Greater Sydney Region.
 - People aged 65 years and over make up 18% of the Ku-ring-gai population, a higher proportion than the North District (16%) and Greater Sydney (13%).
 - People aged 85 years and over make up 3.2% of the population, a higher proportion than the North District (2.7%) and Greater Sydney (1.8%).



Source: Department of Planning and Environment – Community Profile Tool

Figure 2-4 Comparison – Age Structure (2016)

- Increasing rentals and decreasing home ownership.
 - Over the 2006-2016 decade, home ownership has decreased whilst properties with a mortgage and rental properties have increased.

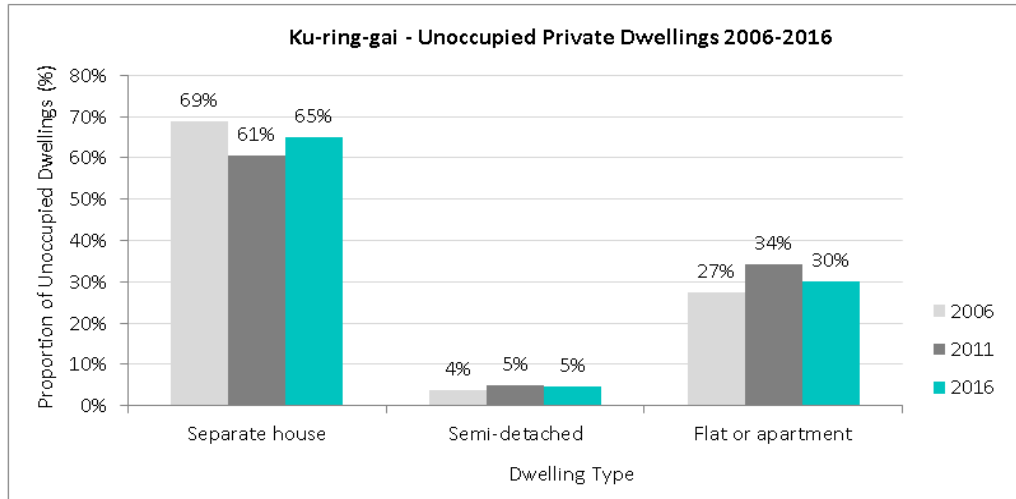


Source: ABS Census Data – Time Series Profile

Figure 2-5 Ku-ring-gai Mix of Tenure from 2006-2016

- Increasing vacancy rates.
 - The number of unoccupied private dwellings in 2011 was 2,718. 1,649 of these properties were separate houses and 930 of these properties were flats or apartments.

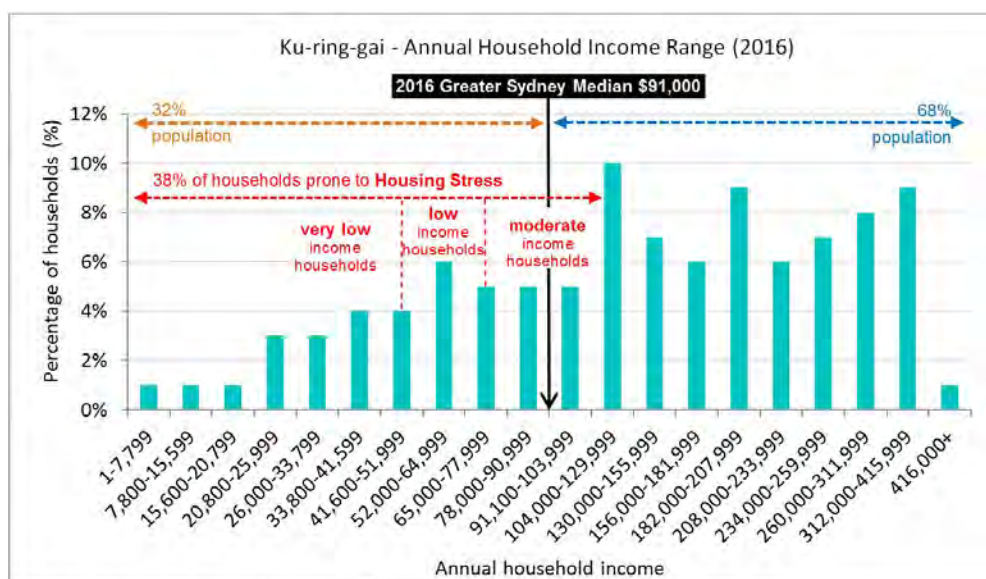
- The number of unoccupied private dwellings in 2016 was 2,789. 1,814 of these properties were separate houses and 839 of these properties were flats or apartments.
- **Note:** Unoccupied private dwellings include vacant houses, holiday homes, newly completed dwellings not yet occupied, dwellings which are vacant because they are due for demolition or repair, and dwellings to let. (ABS Census Dictionary, 2016)



Source: ABS Census Data – Time Series Profile

Figure 2-6 Ku-ring-gai Unoccupied Private Dwelling 2006-2016

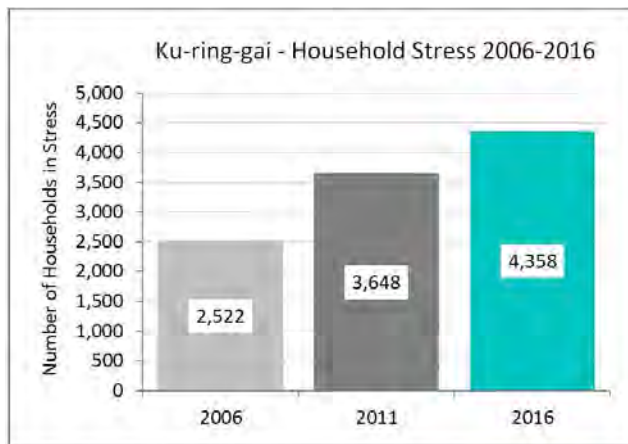
- Predominantly high income households with increasing numbers experiencing housing stress.
 - *Housing Stress* affects *Very Low, Low and Moderate* income households, and occurs when these 3 types of households pay more than 30% of their gross income towards rental or mortgage payments, leaving inadequate funds for other living expenses.
 - 68% of households have an annual household income higher than the Greater Sydney Median income of \$91,000 and 32% earn below the Greater Sydney Median.
 - 38% of households in Ku-ring-gai are prone to Housing Stress. Of these, 4,358 households are experiencing Housing Stress.
 - The number of households experiencing Housing Stress in Ku-ring-gai has increased by 73%, since 2006. This equates to an increase of 1,836 households.



Source: Department of Planning and Environment – Community Profile Tool

Figure 2-7 Ku-ring-gai Annual Household Income Range (2016)

Draft Ku-ring-gai Local Strategic Planning Statement

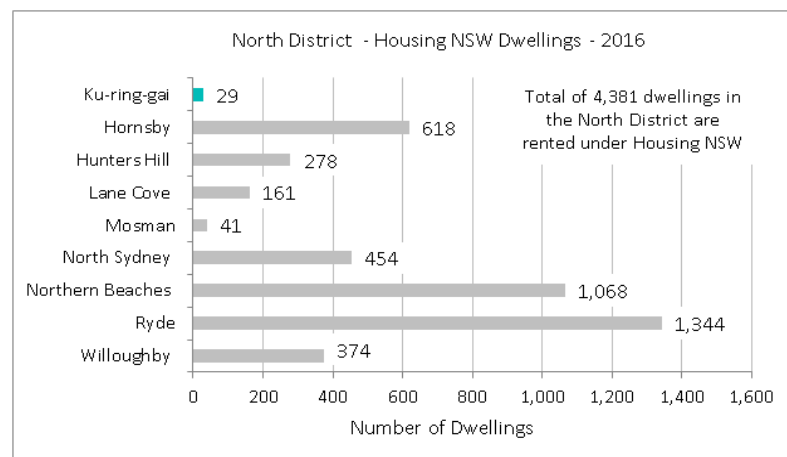


Income Bands prone to Housing Stress	Household Income
VERY LOW INCOME Households earning up to 50% of the Greater Sydney median	\$0 - \$45,500
LOW INCOME Households earning 50-80% of the Greater Sydney median	\$45,500 - \$72,800
MODERATE INCOME Households earning 80-120% of the Greater Sydney median	\$72,800 - \$109,200
Housing Stress is when <i>Very Low, Low and Moderate</i> income households pay more than 30% of their gross income towards rental or mortgage payments.	

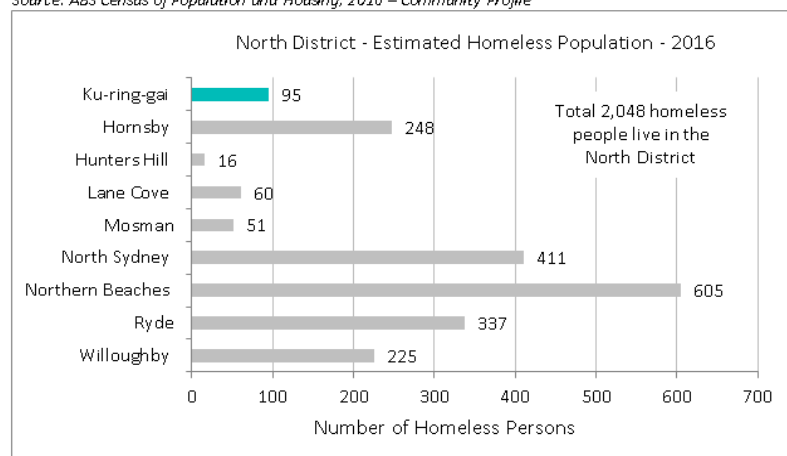
Source: Family and Community Services - NSW Local Government Housing Kit Database 2006, 2011 and 2016

Figure 2-8 Ku-ring-gai Household Stress

- Low numbers of social housing and low numbers of homeless people across Ku-ring-gai when compared to the North District.
 - In 2016, Ku-ring-gai had the lowest number (25) of social housing dwellings rented under Housing NSW when compared to other North District Council areas.
 - In 2016 the homeless population in Ku-ring-gai was estimated at around 95 people. This figure has remained relatively consistent since 2001.



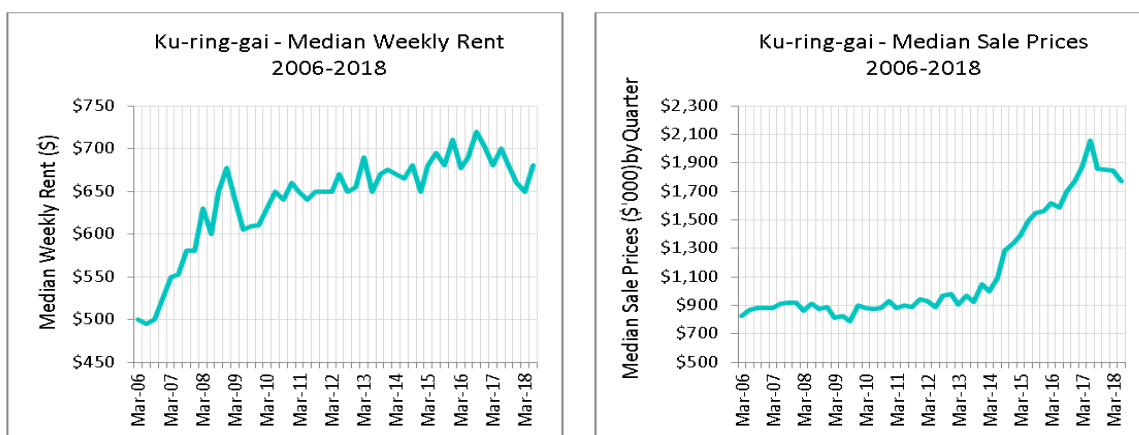
Source: ABS Census of Population and Housing, 2016 - Community Profile



Source: ABS Census of Population and Housing - Estimating homelessness

Figure 2-9 House NSW Dwellings within North District and Estimated Homeless Population North District

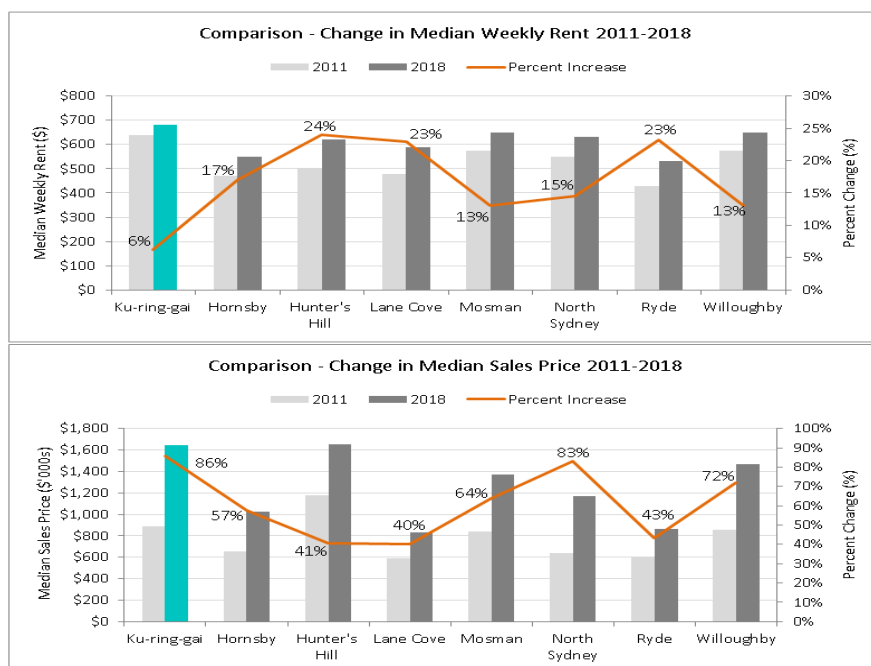
- Although there has been a downturn in the housing market since 2017, sale and rental properties in Ku-ring-gai still command the highest prices in the North District.
 - Between March 2006 – March 2018, Ku-ring-gai's median rent rose from \$500 to \$650 per week; however, the median weekly rent ranged between the lowest at \$495.00 (June 2006) and highest at \$720.00 (September 2016).
 - Between March 2006 – March 2018, Ku-ring-gai's median sale prices rose from \$826,000 to \$1,845,000; however, the median sale prices ranged from the lowest at \$790,000 (June 2009) and highest at \$2,057,000 (June 2017).



Source: Department of Family and Community Services – The Rent and Sales Report Interactive Dashboard and Past Reports

Figure 2-10 Ku-ring-gai Median Weekly Rent 2006-2018 and Median Sales Price 2006-2018

- When compared with other North District local government areas, Ku-ring-gai has had the smallest (6%) percentage increase in weekly rents, but commands the highest rentals out of all the areas.
- When compared with other local government areas, Ku-ring-gai has had the greatest (86%) percentage increase in sales prices and, with Hunters Hill, has the highest property prices in the North District.



Source: Department of Family and Community Services – The Rent and Sales Report Interactive Dashboard and Past Reports
Note: Northern Beaches LGA is excluded from above graphs due to lack of collated data for the recently amalgamated areas.

Figure 2-11 Comparison Change in Median Weekly Rent and Sales Price 2011-2018

Housing provision

The *Community Strategic Plan - Our Ku-ring-gai 2038*, expressing the key values and concerns of local residents, includes comment on the issue of housing diversity and choice, housing affordability, and housing accessibility and adaptability. This *Plan* speaks to the local population's desire for equitable provision of housing and the establishment of long term accommodation enabling continuing residency through changing life cycles. These concerns from the local community are a key driver for a pro-active approach to housing consideration and provision in Ku-ring-gai, and will be investigated further through the Housing Strategy.

It is noted that Ku-ring-gai has little to no social housing provision. Social housing is different and separate to affordable housing, the key difference being:

- *Social Housing* is housing provided for people that have no, or very limited, financial means to enable accommodation choice; or, are in a crisis situation and require immediate rehousing. People that access social housing usually have complex issues making them dependent both physically and financially on the Government. This group is predominantly accommodated through subsidised agreements around the leasing of their homes.
- *Affordable Housing* is housing that enables certain people to live within a geographical area which would normally be inaccessible to them due to the high cost of property rental or purchase. These groups of people have regular incomes and are able to fund their homes. They have a vested interest in the area (work, family, friends) and are generally seen as an asset, contributing to the stability of the local community and economy. Affordable housing is also seen as an important means of addressing the shift in life stages and circumstances of local residents, enabling them to remain in an area with established networks and support through that change.

Housing projections

The Department of Planning and Environment estimates that by 2036 Ku-ring-gai's resident population will reach 154,500 people, increasing by 25% or 31,000 new residents from 2016. The *Greater Sydney Region Plan* states dwelling targets for all the Sydney districts and has the following housing supply targets allocated to the North District:

GREATER SYDNEY REGION PLAN – HOUSING SUPPLY TARGETS		
North District	0-5 year – 2016 to 2021	20 year – 2016 to 2036
Ku-ring-gai, Hornsby, Hunter's Hill, Lane Cove, Mosman, North Sydney, Northern Beaches, Ryde, Willoughby	25,950 dwellings	92,000 dwellings

Figure 2-12 Greater Sydney Region Plan – Housing Supply Targets

The *Greater Sydney Region Plan* has identified a combined 0-5 year housing supply target of 25,950 for the North District Councils based on existing dwelling needs and opportunities to deliver supply. Under the *North District Plan*, Ku-ring-gai is to deliver 4,000 new dwellings during 2016 to 2021 which is consistent with delivery potential under existing planning controls. Each Council is also to determine, in conjunction with the Greater Sydney Commission, what portion of housing it will contribute to the 92,000 target over the 20 year period, 2016 to 2036.

The key challenge in the provision of additional housing in Ku-ring-gai is its integration into the established fabric of the area and the retention of the dominant large lot low density, garden and tree canopy character. This point has also been raised by the local community in the *Community Strategic Plan – Our Ku-ring-gai 2038*, where concern is expressed regarding the loss of quality built and natural areas and associated local character through increased development.

Strategic response

The *North District Plan* requires Council to prepare a housing strategy to meet future housing demands over the next 10 and 20 years. The preparation of a *Ku-ring-gai Housing Strategy* presents an opportunity to:

- consider the appropriate method and mechanism to deliver local housing aligned with the strategic principles of the *Greater Sydney Region Plan*, the *North District Plan*, and preferences expressed in the *Community Strategic Plan – Our Ku-ring-gai 2038* and by the local community;
- clarify issues around conflicting land uses and values to formulate actual housing capacity potentials and identify constraints to provision, including the development of agreed housing supply numerics with the Greater Sydney Commission;
- forward plan to deliver dwellings in a way that supports the area's intrinsic character and growth of sustainable communities through examining opportunities and challenges to provision in and around existing Centres across the local government area, including alignment with transport and infrastructure

In accordance with the *North District Plan*, Council's *Housing Strategy* will provide evidential demonstration of how Ku-ring-gai will accommodate its existing and future population through appropriate type and supply of housing over the next 20 years to 2036. This will include investigation into how housing affordability within Ku-ring-gai can be addressed and accommodated as per the requirements of the *Greater Sydney Region Plan* and the *North District Plan*.

In addition, the *North District Plan* requires consideration of housing supply in 5 year increments from 2016 to 2036 as delineated below.

0-5 year housing supply (2016 to 2021)

The *North District Plan* stipulates delivery of 4,000 new dwellings within Ku-ring-gai during the 5 year period 2016 to 2021.

Since 2016, more than half of the required housing supply quota has been constructed, with the remaining half fully deliverable through current Development Approvals and through land zoned for higher densities. This means that the 0-5 year housing supply target is achievable under Council's existing planning policies, as tabulated below, and no immediate amendment to the *Ku-ring-gai Local Environmental Plan* is necessary.

POTENTIAL HOUSING SUPPLY (2016-2021) - KU-RING-GAI		
Delivery Method	Dwelling Count 2016-2021	Source
Construction completed	2,062	Department of Planning and Environment's Metropolitan Housing Monitor
DA Approvals issued and not yet constructed	1,261	Council records of current DA approvals
Potential R4 and R3 sites within the Local Centres at 80% take-up rate	1,362	Council mapping analysis of Gordon, Turramurra, Lindfield, St Ives Local Centres
Total	4685 dwellings	
<p><i>Note: Delivery is in excess of North District Plan 4,000 dwelling requirement for the 2016-2021 period.</i></p> <p><i>Note: As new water connections are used as a proxy for completions, certain secondary dwellings are not counted.</i></p> <p><i>Note: Calculations do not include potential dwellings - on R3 and R4 sites outside existing Local Centre boundary;</i></p> <p style="padding-left: 40px;"><i>- within mixed use sites on B2 and B4 lands;</i></p> <p style="padding-left: 40px;"><i>- under consideration at Land and Environment Court.</i></p>		

Figure 2-13 Potential Housing Supply (2016-2021) Ku-ring-gai

6-20 year housing supply (2021 to 2026), (2026 to 2031), (2031 to 2036)

Beyond the 0-5 year period, amendment to the *Ku-ring-gai Local Environmental Plan* will be required to facilitate additional housing provision in Ku-ring-gai, with the amendments being informed by the findings and directions of the *Ku-ring-gai Housing Strategy*.

The *Housing Strategy* will examine the three key aspects regarding housing provision. These are:

- *housing location* - enabling good proximity to amenity such as transport, employment, services, and alignment of built form typology with existing and future local character;
- *housing diversity* - enabling housing choice that supports the variety of household structures and lifecycle changes for existing and future residents;
- *housing affordability* - enabling local residents and workers to live within the area close to family, established networks and places of employment.

Ku-ring-gai's 6-10 year housing target will be developed iteratively through the *Housing Strategy*. The *Housing Strategy* will inform on the actual numbers, location and typology of dwellings deliverable within Ku-ring-gai plus address the growing issue of housing affordability at the local level. It will also clarify how the additional housing provision will retain, enhance and develop the current and future local character and factor into the liveability of neighbourhoods as stipulated in the regional and district plans.

In the first instance, the *Housing Strategy* will explore the historical local approach, of consolidating housing density around railway/bus routes and centres of service/economic activity.

Ku-ring-gai has a number of Centres of varying hierarchy with good rail and/or bus transport links as illustrated in the map - *Housing Supply*. As listed in the table below, many of these Centres meet the fundamental criteria of the *Greater Sydney Region Plan* and the *North District Plan* for the suitable location of additional housing as they already provide retail and other services and meet the criteria of the 30 minute city with frequent and fast public transport within 400m or 800m distances from dwellings. The *Housing Strategy* will explore these Centres and determine their ability to provide additional numbers and types of housing to meet the needs of current and future Ku-ring-gai residents.

Consolidating additional housing around these Centres will assist in minimising the subdivision and redevelopment of the majority of residential land across Ku-ring-gai, and assist in the retention of the dominant local character including large lot low density single dwelling areas, established gardens, associated landscaping, natural areas and canopy trees within both the private and public domain. It will also enable the consideration of a future character for the Centres that can integrate Ku-ring-gai's prevailing landscape character into the public domain; and, ensure the successful interfacing of new built forms and densities within the area's existing urban and landscape fabric.

KU-RING-GAI CENTRES – POTENTIAL SUITABILITY FOR ADDITIONAL HOUSING (based on criteria of <i>Greater Sydney Region Plan</i> and <i>North District Plan</i>)				
Centre Hierarchy and Suitability		Centre and Capacity Investigation Area	Investigation Radius	Housing Supply Timing*
SUITABLE	Primary Local Centres <ul style="list-style-type: none"> containing a local railway station or bus route on an arterial road corridor, and meets the criteria for 30 minute access to a strategic centre, and supported by Council's community hub projects with retail services and community facilities. 	<ul style="list-style-type: none"> Gordon Lindfield Turramurra St Ives 	800m	6-10 year (2021 to 2026) and 11-15 year (2026 to 2031)
	Secondary Local Centres <ul style="list-style-type: none"> containing a local railway station or bus route on an arterial road corridor, and meets the criteria for 30 minute access to a strategic centre, and supported by retail and other services predominantly utilised by a localised residential population. 	<ul style="list-style-type: none"> Roseville Killara Pymble Wahroonga 	800m	16-20 year (2031 to 2036)
	Neighbourhood Centres <ul style="list-style-type: none"> containing a bus route on an arterial road corridor identified for upgrade of public transport (from Mona Vale Road to Macquarie Park) and meets the criteria for 30 minute access to a strategic centre; and supported by retail and other services. 	<ul style="list-style-type: none"> Roseville Chase West Gordon North St Ives 	400m	16-20 year (2031 to 2036)
POSSIBLE	Centres for future investigation <ul style="list-style-type: none"> currently with limited transport links which do not meet the criteria for 30 minute access to a strategic centre, and/or currently lacking in retail and other services. these Centres will only become viable for additional housing if transport is improved (such as provision of on-demand buses that can meet the 30 minute criteria), and/or service provision is improved. 	<ul style="list-style-type: none"> North Wahroonga Princes Street (Turramurra) Eastern Road (Turramurra) South Turramurra West Pymble East Lindfield West Lindfield St Ives Chase 	400m	Subject to infrastructure improvements
NOT SUITABLE	Centres where additional housing cannot be located <ul style="list-style-type: none"> located within exclusion areas related to bushfire and evacuation risks. 	<ul style="list-style-type: none"> North Turramurra East Killara South Wahroonga (Fox Valley Road) 	N/A	N/A
*Note – Housing supply timing is subject to further detailed analysis through the <i>Housing Strategy</i> to be undertaken 2019-2020.				

Figure 2-14 Ku-ring-gai Centres – Suitability for additional housing

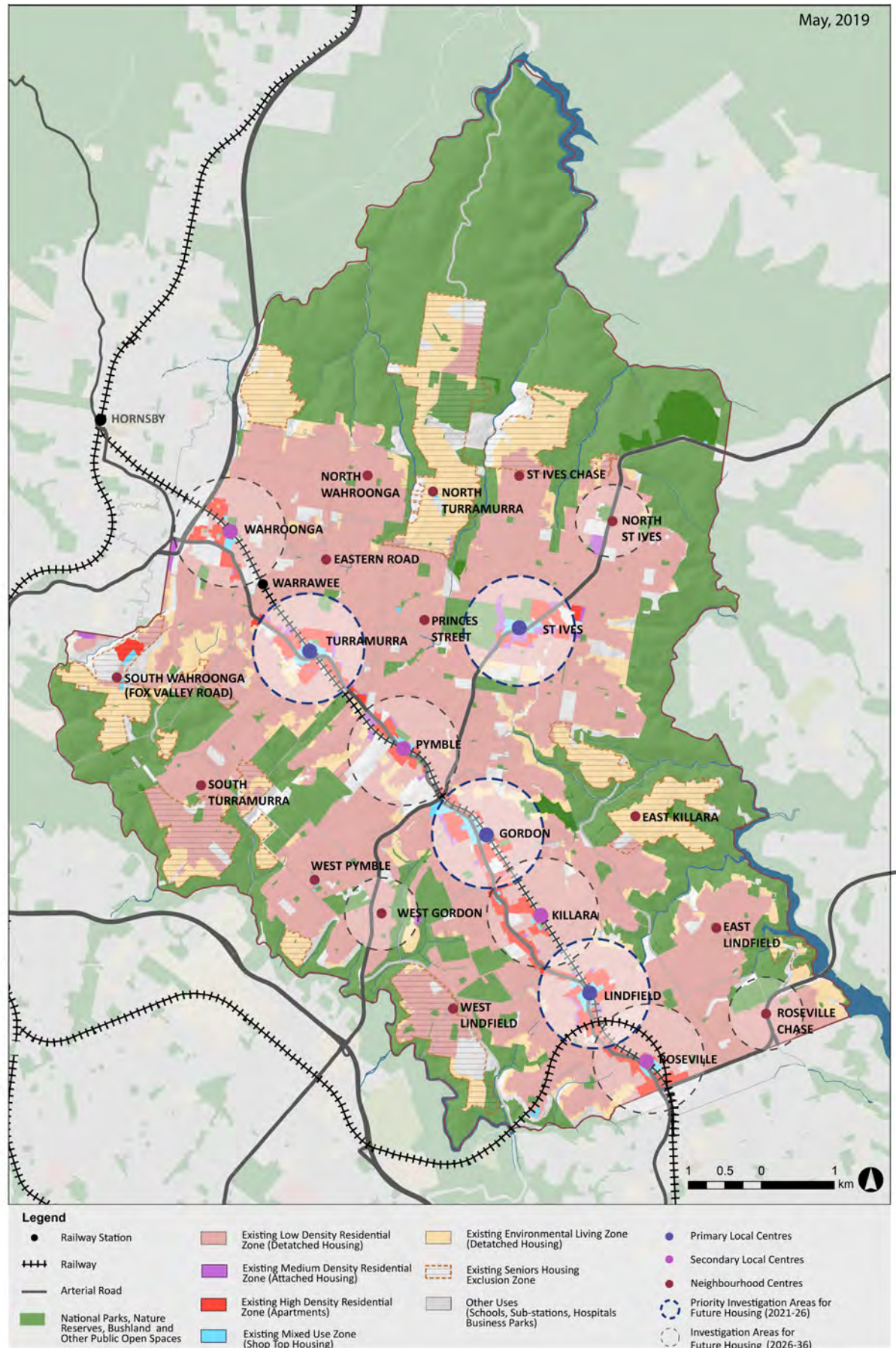
Principles for Housing

Future housing supply in Ku-ring-gai will be based on the following principles:

- Protect and conserve the prevailing Ku-ring-gai character of large lot low density housing within garden settings, including tall canopy trees.
- Consolidate housing around centres of retail and economic activity that are serviced by the North Shore railway line or major bus routes along arterial roads, including provision of housing diversity, affordability and accessibility.
- Locate high density housing types within a 10 minute walk (800 metre radius) of Primary and Secondary Local Centres: Gordon, Lindfield, Turramurra, St Ives, Roseville, Killara, Pymble, Wahroonga.
- Locate medium density housing types within a 5 minute walk (400 metre radius) of Neighbourhood Centres serviced by major bus routes along arterial roads: Roseville Chase, West Gordon, North St Ives.
- Locate medium density built forms and other housing types on interface and transition areas where they function as a buffer between differing scales of building or differing land use types.
- In considering areas for future medium and high density housing forms, the following areas are to be avoided:
 - heritage conservation areas;
 - areas of visual and aesthetic quality and character;
 - areas within or affecting scenic and cultural landscapes;
 - areas of intact tree canopy where the built form does not sit under the canopy;
 - areas with multiple constraints including steep topography;
 - areas with environmental values;
 - areas that are bushfire prone and with evacuation risk;
 - Centres with limited transport and/or service access until improvements are implemented.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priorities K3. Providing housing close to transport, services and facilities to meet the existing and future requirements of a growing and changing community.
	Actions <ul style="list-style-type: none"> ➤ Undertake a <i>Housing Strategy</i> to inform a long term strategy for delivery of housing across Ku-ring-gai. (<i>short term</i>) ➤ Investigate the capacity of Ku-ring-gai's Primary and Secondary Local Centres and Neighbourhood Centres to meet housing supply requirements to 2036, as identified on the Housing Supply Map. (<i>short, medium and long term</i>) ➤ Implement planning responses in Turramurra, Lindfield, St Ives and Gordon Local Centres to facilitate delivery of the 6-10 year (2021-2026) and 11-15 year (2026 to 2031) housing supply. (<i>short term</i>) ➤ Identify future planning responses to deliver the outcomes of the <i>Housing Strategy</i> across Ku-ring-gai to 2036. (<i>ongoing</i>)
	K4. Providing a range of diverse housing to accommodate the changing structure of families and households and enable ageing in place.
	Actions <ul style="list-style-type: none"> ➤ Conduct research including a Housing Needs Study to determine housing types that will meet the changing needs of the local community and enable ageing in place. (<i>short term</i>) ➤ Investigate appropriate locations for, and models of, medium density housing including a medium density complying development model able to integrate into the prevailing local character. (<i>short-medium term</i>)
	K5. Providing affordable housing that retains and strengthens the local residential and business community
	Actions <ul style="list-style-type: none"> ➤ Undertake a Housing Affordability Study to determine the profile of local residents and essential workers in need of affordable housing, and the appropriate location for viable provision. (<i>short term</i>) ➤ Prepare a SEPP 70 Affordable Housing Contribution Scheme for Ku-ring-gai to enable a mechanism for the delivery of local affordable housing. (<i>short - medium term</i>)
North District Plan	Planning Priority N6 Creating and renewing great places and local centres, and respecting the District's heritage.
Greater Sydney Region Plan	Objective 12 Great places that bring people together

Map – Housing Supply



Local and Neighbourhood Centres

Ku-ring-gai Local Planning Priorities

K6. Revitalising and growing a network of centres that offer a unique character and lifestyle for local residents

This priority will support and build a sense of community identity by recognising and protecting local characteristics and qualities of the centres that residents value while offering a range of shops and new homes where people can live, work, shop, and spend leisure time.

K7. Facilitating mixed use developments within the centres that achieve urban design excellence

This priority will support delivering safe, inclusive and walkable mixed-use areas that exhibit urban design excellence and are connected to transport, social infrastructure and open spaces.

Background

Ku-ring-gai's urban centres first developed in the early 1900s as a series of villages along the main north shore rail line; later more centres were developed coinciding with extensive residential subdivision that took place in the post-war period. Over time each centre has developed their own unique character reflecting their history, location and context. The physical appearance of Ku-ring-gai, the connectedness of green leafy areas encompassing both public and private lands and the physical location of urban areas within a well-defined geographic boundary, have been critical contributory factors to the areas sense of place. Today Ku-ring-gai's centres play a vital role in the local economy; they provide a diverse mix of office and retail uses, support services and community facilities and are a focus for public transport and road connections.

The *North District Plan* identifies four Local Centres in the Ku-ring-gai LGA namely, Turramurra, St Ives, Gordon and Lindfield. Since 2008 council has been actively undertaking place-based planning for these centres; this has included master plans, public domain plans and site-specific DCPs.

Over the last 15 years there has been significant development of high and medium density housing around the edges of the centres. This development has generally been on easy to consolidate, large-lot residential land that has been up-zoned. In the commercial areas of the Local Centres there has been very little development of mixed use buildings as it is more difficult to consolidate viable sites for redevelopment given the pattern of small lots in fragmented ownership and very high land values.

While new residential development has strengthened the role of the Local Centres over recent years it has resulted in the creation of a "hole in the donut" situation where large numbers of new residents are living close to the centres which have seen very little change in amenity, services and infrastructure. One exception to this situation is a new mixed use development on Lindfield Avenue, Lindfield which has introduced a contemporary retail environment to the area and has become popular with the local community.

Overall the lack of interest shown by the development market in mixed use typology has become a key issue for Council with a growing population and high community expectations.

Revitalisation of the Local Centres was identified by residents as a key issue during preparation of the *Community Strategic Plan - Our Ku-ring-gai 2038*. A long-term goal in the *Community Strategic Plan (CSP)* is to ensure "Our centres offer a broad range of shops and services and contain lively urban village spaces and places where people can live, work, shop, meet and spend leisure time".

Council has taken a proactive place-making role by creating 'Activate Ku-ring-gai' which is a staged program of urban renewal lead by council across the 4 Local Centres. The Program will lead to the implementation of 'on-the-ground' projects that will make a real difference to the quality, safety and amenity of the centres.

The program leverages off Council's land ownership in the centres to deliver much needed community infrastructure, such as parks, town squares and libraries; alongside new shopping, dining and leisure experiences; and delivered through innovative mechanisms and/or development partners. The projects are the result of careful planning and strategic land acquisitions over many years by Council; the sites are well located within close proximity to rail stations.

Council's Delivery Program 2018-2021 and Operational Plan 2018-2019 sets thirteen term achievements and tasks related to revitalisation of the Local Centres, key amongst these are:

- Commencing construction of Lindfield Village Green;
- Securing a development partner for Lindfield Community Hub and the Turramurra Community Hub;
- Design and planning for new parks and streetscape improvements in the centres of Gordon, Lindfield and Turramurra;
- Continuing to plan for, and deliver, new parks; and
- Preparing a strategy to guide the delivery of libraries, community centres and cultural facilities across the LGA.

Strategic response

In the short term, to align with KLEP Amendment 2021, Council will prioritise a place-based planning process and preparation of structure plans for the four (4) Local Centres identified in *The North District Plan*. The process will include targeted engagement and collaboration with residents businesses, state agencies, land owners and other stakeholders. A place-based planning approach will safeguard the unique and valued characteristics of each centre, whilst providing the potential for additional housing and local jobs. Key liveability improvements should include:

- Increasing walking and cycling to reduce car dependency;
- Providing new parks and civic spaces as locations for exercise, meeting and socialising;
- Co-location of new community facilities including libraries, community centres and cultural facilities to encourage and maximise opportunities for social interaction;
- New commuter car parking facilities to increase public transport usage;
- Protection of heritage, biodiversity, tree canopy and other notable features so as to maintain local character;
- New shopping, dining and leisure experiences to improve the vitality and viability of the centres and meet the day-to-day needs of residents;
- Increasing the number and quality of crossing points over both the arterial roads and rail corridor for all forms of transport to connect the separate parts of the centres; and
- Connecting the centres to the surrounding areas via green grid corridors to improve walkability and cycling in the area.

As a first step in the place-based planning process Council has prepared draft planning priorities for each of the four Local Centres for community comment. The priorities are based on current and past research, community surveys, other community consultation and independent studies. The planning priorities are to support the growth and revitalisation of:

- Turramurra Local Centre as a family-focused urban village;
- Lindfield as a thriving and diverse centre;
- Gordon Local Centre as the civic and cultural heart of Ku-ring-gai; and
- St Ives Local Centre as an active green lifestyle and shopping destination.

In addition to this council has prepared draft information on Turramurra and Lindfield Local Centres in relation to local character. The information provided is:

- What gives the Local Centre its unique character?
- What detracts from the Local Centre's unique character?
- What are the opportunities to improve and enhance the Local Centre?
- Draft design principles as the basis for place-based planning.

This material will form the foundations for targeted engagement with the community to assist with the preparation of the housing scenarios exploring potential locations for new housing and Local Centre Structure Plans. During this process there will be further refinement of the character statements, opportunities and design principles for the four centres.

Revised Public Domain Plans (PDPs) will be prepared for the centres to capture and integrate the proposed new community infrastructure such as cycle ways, parks, walkways and the like. The PDPs will be fully costed so that the works can be captured in council's new development contributions plan (Ku-ring-gai Local Planning Priority K1). At the same time detailed guidelines and building envelope controls will be prepared for the centres to ensure new developments protect and enhance the local character while providing opportunities for new housing and jobs. The site-specific DCP will be aligned with KLEP Amendment 2021, and provide LEP provisions relating to Building Height, Floor Space Ratio, site coverage and others.

A key component of achieving liveable centres is urban design excellence. Great places recognise local characteristics and the qualities people value; mixed-use areas that exhibit urban design excellence are a critical ingredient of great places. To this end Council will also prepare an urban design excellence policy and statutory provisions to ensure new developments on key sites within the Local Centres meet stringent design excellence standards.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priorities
	<i>K6. Revitalising and growing a network of centres that offer a unique character and lifestyle for local residents</i>
	<i>K7. Facilitating mixed use developments within the centres that achieve urban design excellence</i>
North District Plan	Actions
	<ul style="list-style-type: none"> ➤ Undertake a place-based planning process for the four centres including targeted community engagement in relation to housing scenarios (<i>short term</i>) ➤ Prepare Local Centre Structure Plans for the four centres including locations for new housing (<i>short term</i>) ➤ Prepare revised Public Domain Plans for the four centres (<i>short-medium term</i>) ➤ Prepare site-specific Development Control Plans for the Local Centres (<i>short-medium term</i>) ➤ Prepare urban design excellence policy and statutory provisions for Local Centres (<i>short term</i>)
	Planning Priority N6
Greater Sydney Region Plan	Objective 12
	Great places that bring people together

Gordon Local Centre

Ku-ring-gai Local Planning Priority

K8. Promoting Gordon as the centre for business and civic functions and as the cultural heart of Ku-ring-gai

This priority will support the growth and revitalisation of Gordon Local Centre incorporating a diverse mix of uses including civic and cultural, business and retail, entertainment and leisure, and residential uses. Council will be a key catalyst in this process through the provision of a community hub that will provide contemporary public facilities including an auditorium, art gallery and central library, alongside new parks and public spaces. This priority will also strengthen and support Gordon as an important Local Centre for business activity and employment.

Background

Historically Gordon has provided a range of social and civic functions. The heritage-listed Ku-ring-gai Council Chambers has been the centre of the administration of local government since 1928. Located in the geographical centre of the local government area, the building has served as the centre of decision-making relating to the whole of the municipality over generations and has provided a local landmark given its location and orientation. The War Memorial at the front of the building provided a focus for the community's commemoration of the sacrifices of past wars; in earlier times the Pacific Highway was temporarily closed for commemoration ceremonies.

Other important public buildings in Gordon include:

- *Iolanthe*, built in 1870, is a heritage-listed former residence and post office located at 691 Pacific Highway, Gordon;
- St Johns Church which opened in 1872;
- St Johns Cemetery which opened in 1867;
- The Gordon Public School is a heritage-listed former government public school located at 799 Pacific Highway. The school was opened in 1871 and closed in 1989;
- The Gordon railway station is a heritage-listed railway station located on the North Shore line, the station was designed and built by the New South Wales Department of Railways in 1909; and
- Gordon library and Gordon Police Station are relatively recent public buildings built in the 1980s on the site of the former Gordon Public School.

Landform and topography

Gordon Local Centre is located on a narrow ridge which falls away steeply on the western side of the Pacific Highway, to the east the land is undulating with small areas of flat land. Generally streets to the east offer gentle to moderate slopes and invite walking and cycling, while streets to the west of the centre, such as Dumaresq Street are steeper. Local highpoints are marked by the St Johns Church and the Gordon library (former Gordon Public School).

A number of major riparian corridors extend to within close proximity of the ridge on both the eastern and western sides; the most significant of these is the Stony Creek catchment which extends to the north-east corner of the area at the intersection of the Pacific Highway and Mona Vale Road; and Blackbutt Creek catchment which extends to the Pacific Highway between Dumaresq and McIntyre Streets.

Urban development

Urban development has responded to the landscape and underlying geology. East of the railway development is typified by housing dating from the late 1800s to early 1900s, some of which are protected within Heritage Conservation Areas (HCAs) or as Heritage Items. The more challenging terrain to the west has resulted in a lower scale pattern of development, more characteristic of the mid to late 20th century, which has in turn helped to retain a significantly denser tree canopy.

In recent years the western side of Gordon has seen significant development of apartment buildings and town houses.

Commercial and retail land uses in the Gordon Local Centre are primarily clustered along Pacific Highway.. Strip retail lines both sides of the Pacific Highway and St Johns Avenue in the form of fine grain, shop buildings in an array of typologies and styles, ranging from 19th Century-style, two storey brick commercial buildings, single storey retail shops and more modern, 2 to 4 storey commercial buildings. Food and beverage operators dominate and the presence of such retailers is indicative of the high-level of foot traffic and custom associated with the Gordon Local Centre.

Gordon Centre, located on 802-808 Pacific Highway, is a two level retail centre anchored by major tenants Harvey Norman and Woolworths as well as over 20 specialty retailers ranging from personal services, pharmacies and banks. Gordon Village Arcade is located on 767 Pacific Highway, directly across Gordon Centre and connected by a sky pedestrian bridge over the Pacific Highway. The arcade comprises a mix of health service providers, cafes and specialty retail.

Employment uses have been a characteristic of Gordon over recent history however over the last five years there has been a decrease as a consequence of the extensive redevelopment of the commercial office precinct around Fitzsimmons Lane on the northern edge of the centre; and the pending redevelopment of 810 Pacific Highway by ALDI who intend on redeveloping the site as a mixed use building with residential and a supermarket.

Gordon Private Hospital in the centre's south recently opened in 2018 and is an independent teaching hospital with affiliations to the University of NSW. It has 57-beds and caters specifically for mental health.

Tree canopy

The eastern side of Gordon supports a mix of remnant native and exotic specimens. Overall the canopy coverage is dense, with the majority of streets having mature street trees, and many private properties also including large, well-established trees. The western side of Gordon lacks mature street trees.

There are a few areas around Gordon Local Centre which support remnants of the Blue Gum High Forest these tend to be concentrated along the riparian corridors on the western and eastern sides of the centre.

Access network

The Gordon Local Centre is centred around Gordon train station and along the Pacific Highway which bisects the centre. The centre extends from Ryde Road/Pacific Highway intersection in the north to Bruce Avenue in the south.

The centre is accessible via Gordon train station, which is serviced by the T1 North Shore line and the inter-city train line, as well as major arterial roads Pacific Highway, Ryde Road and Mona Vale Road. Chatswood CBD is approximately 8 kilometres south, and Sydney CBD is 12 kilometres south.

Gordon is close to major employment hubs including Chatswood, St Leonards Health and Education Precinct, North Sydney CBD, and Macquarie Park.

The Pacific Highway with its heavy traffic is a major barrier to east-west pedestrian access between the two sides of the centre. Crossing opportunities are limited to signalised intersections, and only one offers all four 'legs'. The Gordon Centre provides a pedestrian bridge connection however this is not well used due to poor connectivity with the street. Mona Vale Road/Ryde Road is a major north-south road on the northern edge of the centre, is another barrier for pedestrians. The road has limited signalised crossings, making it unpleasant and difficult for pedestrians to access the area from the north.

Open space

Residents in Gordon have good access to extensive natural areas via the Stony and Rocky Creeks on the eastern side and via Blackbutt, Falls and Links Creek on the western side. The Gordon Golf Course is also a popular spot for local residents.

There are few urban parks within close proximity to the centre. There are two parks within the area that provide playgrounds and other facilities these are Gordon Recreation Reserve on Werona Avenue and Gordon Glen on Dumaresq Street.

Council has acquired land on Dumaresq Street for a new park and upgrade works are soon to commence on the Gordon Recreation Reserve to provide improved play facilities. Despite this, the significant population growth over the last 10 years means there is a lack of local parks in the area and the provision of additional parkland in Gordon is a planning priority for Council. (Refer Open Space Network Planning Priority K27).

Heritage

There are a number of significant Heritage Conservation Areas in Gordon Local Centre the most extensive areas are on the eastern side and include:

- The Gordon Park Estate HCA;
- Gordondale Estate HCA;
- Robert Street/Khartoum Avenue HCA; and
- Smith Grant HCA.

HCAs on the western side are:

- Yarabah Avenue HCA; and
- St Johns Park Estate HCA

Activate Gordon

Ku-ring-gai Council is committed to revitalising key centres in the LGA through a series of urban revitalisation programs, known as 'Activate Ku-ring-gai'. The Activate Gordon precinct is identified in the Ku-ring-gai Development Control Plan (2016) and is a revitalisation and beautification initiative focused largely on Council-owned sites which include the former school, Gordon Library and the Council Chambers.

Activate Gordon seeks to leverage Council-owned sites to develop a Civic Hub Precinct in the centre which will incorporate a cultural centre and art gallery, new council chambers and administration offices, a library and a civic/ceremonial space.

Strategic response

As a first step in the place-based planning process Council has prepared a draft planning priority for Gordon Local Centre for community comment. The priority is based on current and past research, community surveys, other community consultation and independent studies. The draft Local Planning Priority aims to support the growth and revitalisation of:

"Gordon as the centre for business and civic functions and as the cultural heart of Ku-ring-gai"

This priority will support the growth and revitalisation of Gordon Local Centre incorporating a diverse mix of uses including civic and cultural, business and retail, entertainment, and residential uses. Council will be a key catalyst in this process through the provision of a civic hub that will provide contemporary public facilities including an auditorium, art gallery and central library, alongside new parks and public spaces. This priority will also strengthen and support Gordon as an important Local Centre for business activity and employment.

The next step will be to undertake targeted engagement with the community to assist with defining:

- What gives Gordon Local Centre its unique character?
- What detracts from Gordon Local Centre's unique character?

- What are the opportunities to improve and enhance Gordon Local Centre?

This material will form the foundations for further engagement with the community to assist with the preparation of the housing scenarios exploring potential locations for new housing and Local Centre Structure Plans.

St Ives Local Centre

Ku-ring-gai Local Planning Priority

K9. Promoting St Ives Local Centre as an active green lifestyle and shopping destination

This priority will support the growth and revitalisation of St Ives Local Centre as a unique place offering extensive shopping and outdoor dining opportunities. The village green will be improved and enhanced building on the green character and continuing to offer a diversity of recreation and leisure activities. The interface between the Village Green and the shopping centre will become a broad tree-lined promenade lined with cafes and restaurants; and new parks and a community hub will provide a strong family and youth focus. This priority will also build on the potential for the centre as a destination for short-term visitors passing through on their way to the Wildflower Garden and the St Ives Showground

Background

The St Ives Local Centre is bisected by Mona Vale Road, extending from the St Ives Shopping Village in the south-west to the Killeaton Street/Mona Vale Road intersection to the north-west. The St Ives Local Centre additionally encompasses the residences and local parklands straddling Mona Vale Road.

St Ives is located approximately 15 kilometres north of Chatswood and 20 kilometres north of the Sydney CBD; and 3km from the closest railway station at Pymble and 3.7km away from the railway stations at Turramurra and Gordon. St Ives is only serviced by local bus services and is not serviced by rail. Local buses provide a service to Gordon train station and then onto the Sydney CBD.

The centre is also within 4km of the Ku-ring-gai Wildflower Garden and 6.4km to the St Ives Showground both of which form part of a developing tourism and entertainment precinct well-known as the venue for the successful annual 'Medieval Fair' which attracts visitors nationally and internationally.

Land use

The majority of economic and business activity within St Ives Local Centre is focused in the St Ives Shopping Village which is centrally located and provides a range of day-to-day goods and services for the local area. The Shopping Village is a sub-regional, single-storey enclosed shopping centre comprising Woolworths, IGA and Harris Farm; as well as over 100 speciality retailers with a variety of retail and non-retail service providers.

Strip retail is located on either side of Mona Vale Road with single and double storey commercial buildings in fine grain lot patterns. A variety of businesses are located within these properties, including local bank branches, medical operators, real estate agencies and restaurants.

The periphery of the Local Centre is dominated by the traditional single and double-storey detached housing however in recent years residential flat buildings have become more commonplace particularly along Mona Vale Road and adjoining side streets; Cowan Road and Killeaton Street are dominated by single and double storey town houses and Seniors Housing.

Landform and topography

The core of the St Ives Local Centre is located on relatively flat land which gently falls to the east. Generally streets to the north offer gentle slopes and invite walking and cycling, while streets to the south of the centre area are steeper. Local highpoints and a ridgeline separate the central Shopping Village and Village Green precinct from Pymble Golf Club to the west and Dalrymple-Hay Natural Reserve to the south.

Tree canopy

The impression of St Ives is of a very verdant setting, providing a lush landscape character to the suburb. The trees are often very large, at over 20m+, and are a mix of remnant native and exotic specimens. Overall the canopy coverage is dense, with the majority of streets having mature street trees, and many private

properties also including large, well-established trees. New residential developments have supported this character with tree planting in front setbacks.

A striking characteristic of the St Ives Local Centre is that it is located amongst tall trees including surviving remnants of the Blue Gum High Forest. There are a few areas of particularly dense coverage, including an area to the south that spreads to form part of the Dalrymple-Hay Nature Reserve, and another at the eastern edge of the Village Green, fronting onto Memorial Avenue. This 'bush' setting contains a variety of remnant tree species, providing considerable screening to the road.

Access network

Mona Vale Road is the main access route through the St Ives Local Centre. The classified road is six lanes and approximately 30m wide and in 2017, the NSW Road and Maritime Services (RMS) introduced new northbound and southbound extended clearways in order to reduce congestion and delays for through-traffic. Other major streets in the study area are Killeaton Street to the north, Memorial Avenue and Cowan Road in the centre, and Horace Street/ Link Road to the east. The intersection of Link Road and Mona Vale Road is the largest in the study area.

St Ives is serviced by Sydney Buses with seven routes operating along its key streets. The nearest train station is Pymble Station 3km to the south-west with Turramurra and Gordon Stations 3.7km to the west and south-east respectively. Marked cycle routes exist along Killeaton Street, Links Road and Rosedale Road.

Mona Vale Road with its heavy traffic is a major barrier to north-south pedestrian access. Crossing opportunities are limited to signalised intersections, and only two of those (at Memorial Avenue and Link Road) offer all four 'legs'. Village Green Parade and adjoining parking areas between the Shopping Village and the Village Green are also significant barriers to pedestrians, this situation is slightly improved by two 'zebra crossings'. Killeaton Street, a major east-west road, is another barrier for pedestrians. The road has limited signalised crossings, making it dangerous for pedestrians to access the Shopping Centre from the north.

Open space

The St Ives Local Centre is encircled by broad areas of open space with the Village Green to the north, the Pymble Golf Club to the east and the Dalrymple-Hay Nature Reserve to the south.

The largest areas of open space are the St Ives Village Green and the William Cowan Oval, to the north of the shopping centre. There are numerous smaller parks and reserves spread throughout the study area, including the triangular shaped St Ives Memorial Park at the intersection of Mona Vale Road, Porters Lane and Rosedale Road, and the St Ives Rotary Park at the corner of Mona Vale Road and Memorial Avenue.

There are also numerous small reserves for environmental protection, such as the Ivor Wyatt Reserve, Turpentine Forest at the end of Gillott Way, Seven Wives Wood on Richards Avenue, Bedes Forest Reserve and Huntleys Forest off Lynbara Avenue to name a few.

There are few urban parks within close proximity to the centre. The significant population growth over the last 10 years and heavy sporting use of the Village Green means there is a lack of local parks in the area, Putarri Avenue Reserve is the only park on the southern side of the centre with playground facilities and the closest to the north is Memorial Avenue Reserve.

Council has recently acquired land on the east of the study area on Carcoola Avenue (Lapwing Reserve) and created a new park; council is also in the process of acquiring land adjoin Bedes Forest Reserve for a new park. In addition extensive work is soon to commence on the St Ives Village Green to provide improved play facilities and a new skate park.

Heritage

The only significant heritage listing is former St Ives Public School buildings (now a Community Centre and restaurants) at the intersection of Rosedale and Mona Vale Roads. There is a concentration of heritage dwelling houses to the south-west of the centre in the area between Pentecost Avenue and Greendale Avenue.

St Ives was the one area in Ku-ring-gai not affected by the opening of the steam railway in 1890. For the first half of the 20th century it remained an isolated, largely self-sufficient rural community. From the 1950s this situation changed rapidly as described by the Ku-ring-gai Historical Society:

"In the early 1950s, St Ives began its phenomenally rapid transformation into a dormitory suburb. Unlike most of Ku-ring-gai it is relatively flat and lent itself to residential development. This growth was spurred by a number of factors – great improvement to the roads and particularly the opening of the Eastern Arterial Road between Boundary Street, Roseville, and Mona Vale Rd, increased car ownership, Sydney's growth and the post war need for more homes. The area was rezoned in 1959 from 'rural' to 'residential'. In 1954 its population was under 3,000. Between 1961 and 1976 the population trebled from 5,247 to 18,521.

Activate St Ives

Ku-ring-gai Council is committed to revitalising key centres in the LGA through a series of urban revitalisation programs, known as 'Activate Ku-ring-gai'. The Activate St Ives precinct is identified in the Ku-ring-gai Development Control Plan (2016) and is a revitalisation and beautification initiative focused largely on Council-owned sites adjoining the St Ives Shopping Village. Activate St Ives seeks to leverage Council-owned sites, in collaboration with private land owners, to develop a Community Hub which will incorporate an integrated district library and community centre and new public domain areas adjoining the Village Green.

Strategic response

As a first step in the place-based planning process Council has prepared draft planning priority for St Ives Local Centre for community comment. The priority is based on current and past research, community surveys, other community consultation and independent studies. The draft Local Planning Priority aims to support the growth and revitalisation of:

"St Ives Local Centre as an active green lifestyle and shopping destination"

This priority will support the growth and revitalisation of St Ives Local Centre as a unique place offering extensive shopping and outdoor dining opportunities. The village green will be improved and enhanced building on the green character and continuing to offer a diversity of recreation and leisure activities. The interface between the Village Green and the shopping centre will become a broad tree-lined promenade lined with cafes and restaurants; and new parks and a community hub will provide a strong family and youth focus. This priority will also build on the potential for the centre as a destination for short-term visitors passing through on their way to the Wildflower Garden and the St Ives Showground.

The next step will be to undertake targeted engagement with the community to assist with defining:

- What gives St Ives Local Centre its unique character?
- What detracts from St Ives Local Centre's unique character?
- What are the opportunities to improve and enhance St Ives Local Centre?

This material will form the foundations for further engagement with the community to assist with the preparation of the housing scenarios exploring potential locations for new housing and Local Centre Structure Plans.

Turramurra Local Centre

Ku-ring-gai Local Planning Priority

K10. Promoting Turramurra as a family-focused urban village

This priority will support the growth and revitalisation of Turramurra Local Centre as a community hub for local residents living in the north of Ku-ring-gai. Turramurra will become a well-connected and attractive place to live, work and shop. The centre's village atmosphere will be enhanced through the provision of new parks and public spaces, as well as a new library and community centre, where local families can meet and spend leisure time.

Background

Turramurra Local Centre is largely characterised by its early 20th Century federation houses, significant private gardens and established large canopy trees, shop top housing in the retail heart of the centre and prominent elevated topography.

Turramurra's topography features two prominent ridges, with its urban centre focused along the higher points. The elevated ridge-line topography creates opportunities for views into and beyond the suburb, while dense tree canopies and deep valleys screen lower density development. The main ridge rises from the south-east and runs north-west, parallel to the Pacific Highway. The landscape falls steeply to the west of this ridge. Falls to the north and east are relatively gentle.

Urban development has responded to the landscape and underlying geology accordingly. The gently falling northern slope is notably more developed than the southern slope. These areas are typified by housing dating from the late 1800s to early 1900s, some of which are protected by Heritage Conservation Areas (HCAs) or Heritage Items. The more challenging terrain to the south and west was developed later with a pattern of development more characteristic of the 1950s-1970s. Most properties are large lots (more than 1,000sqm in size) which have in turn helped to retain a significantly denser tree canopy.

The Rohini Street shopping strip is situated on the eastern side of Turramurra station and continues in part along the Pacific Highway. This retail centre supports a valuable mix of uses and services. The low scale and fine grain character is important to the local community and is a link to the past.

The Pacific Highway and the north shore rail line intersect at Turramurra, the impact of the road and rail upon the locality is the division of its centre into 4 constituent parts. The ability to support a town centre atmosphere that traverses an arterial road with almost 70,000 vehicles per day is difficult. To then traverse across a rail corridor with limited crossing points adds further complexity to the situation.

For pedestrians and cyclists the approach from the southern catchment to the centre is met by a steep climb up to the ridge. There are only 3 pedestrian crossings inside the Local Centre. They are at Pacific Highway's intersection with Ray Street, Kissing Point Road and Rohini Street. The result is that the railway and highway form a physical and psychological barrier for pedestrians approaching the Local Centre from the south.

Activate Turramurra

Ku-ring-gai Council is committed to revitalising key centres in the LGA through a series of urban revitalisation programs, known as 'Activate Ku-ring-gai'. The Activate Turramurra precinct is identified in the Ku-ring-gai Development Control Plan (2016) and is a revitalisation and beautification initiative focused on land adjoining the rail station. Activate Turramurra seeks to leverage Council-owned sites, in collaboration with private land owners, to develop a Community Hub which will incorporate an integrated district library and community centre, a park and new public domain areas.

Strategic response

As a first step in the place-based planning process Council has prepared draft planning priority for Turramurra Local Centre for community comment. The priority is based on current and past research, community surveys, other community consultation and independent studies. The draft Local Planning Priority aims to support the growth and revitalisation of:

Turramurra as a family-focused urban village

This priority will support the growth and revitalisation of Turramurra Local Centre as a community hub for local residents living in the north of Ku-ring-gai. Turramurra will become a well-connected and attractive place to live, work and shop. The centre's village atmosphere will be enhanced through the provision of new parks and public spaces, as well as a new library and community centre, where local families can meet and spend leisure time.

To support the Planning Priority this LSPS also provides draft statements relating to the character of Turramurra Local Centre; parts of the Centre that impact on the character, amenity or reduce the functionality (termed detracting elements); future opportunities for improvements; draft principles as suggestions to guide future planning; and a draft Structure Plan. As with the Planning Priority the draft Statements and Structure Plan are based on Council policy, current and past research, community surveys, other community consultation and independent studies.

The next step will be to undertake targeted engagement with the community. This material will form the foundations for further engagement with the community to assist with the preparation of the housing scenarios exploring potential locations for new housing and Local Centre Structure Plans.

Turramurra Local Centre – Planning Principles and Structure Plan

The following sections describe opportunities and constraints, planning principles and a structure plan to guide future development of Turramurra Local Centre. These are based on Council policy, previous studies and community consultation undertaken in relation to the future of the centre.

What gives Turramurra Local Centre its unique character?



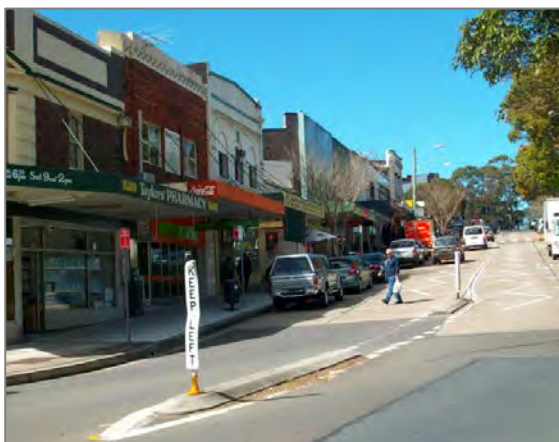
Turramurra's topography features two prominent ridges, focusing its urban centre along high points. The Aboriginal meaning for Turramurra is "Big Hill". The high ridge-line topography affords views into and beyond the suburb as well as across the Sydney basin, while dense tree canopies and deep valleys fall away to the south.



The heritage listed Railway Gardens that are well-maintained with large adjacent significant trees. A new section has been recently open to the public.



The small cluster of shops on William Street facing the Railway Gardens that are a mix of single and double storey early 20th century architecture. These commercial premises face a row of large street trees that dominate the landscape streetscape in this precinct.



The Rohini Street shops are characterised by a fine grain commercial character established in 1912. While some of the street frontages have been modernised the intimate scale and the original character remains.



Cameron Park, now double its original size, retains large canopy trees and includes a shaded children's play area. The open space is now the focus of the Gilroy Road precinct behind Rohini Street. Clear views in, a well maintained appearance and multiple entries make the park welcoming and well used.



The Hillview Conservation Area is a rare collection of heritage public buildings set high near the Local Centre with significant gardens, large canopy trees and sweeping views of the district.



The Pacific Highway retail strip is a collection of fine grain, two storey shop top commercial uses with a mix of architectural styles including Art Deco. These shops mark the presence of the Local Centre along the Pacific Highway. Though the six lane highway splits the shopping strip, the fine grain retains a pedestrian scale and variety in the streetscape.

The existing retail offering suffers from poor pedestrian amenity due to the impacts of the Pacific Highway.



Turramurra has a rich history, from its aboriginal origins as the home of the hunter-gatherer *Terramerragal* people. To its European heritage, dating back to the 1820s, when the area was known for its timber-getting industry. As forests were cleared, estates were gradually subdivided to create fruit orchards. In the latter part of the 19th Century, investment companies began to subdivide and sell land, which intensified with the opening of Turramurra Station in 1890.

What detracts from Turramurra Local Centres character?



A key impact of the Pacific Highway and the rail line upon the locality is the division of the Local Centre, into four constituent parts - namely the proposed Hub site precinct, Rohini Street, Turramurra Plaza shops and Hillview Precinct.

The ability to support a local centre 'village' atmosphere that traverses an arterial road carrying 65,000+ vehicles per day and a railway line is difficult to achieve and maintain.



Rail and roads. Dark green contours highlight ridgeline, railway [1] and Pacific Highway [2] highlighted in black. Ku-ring-gai Avenue highlighted in grey [3].

Pedestrian connectivity of the Local Centre is compromised by the fragmentation of the Local Centre, which is further exacerbated by steep terrain, in part, and the limited number and quality of crossing points for pedestrians and cyclists over both the Pacific Highway and the rail corridor.



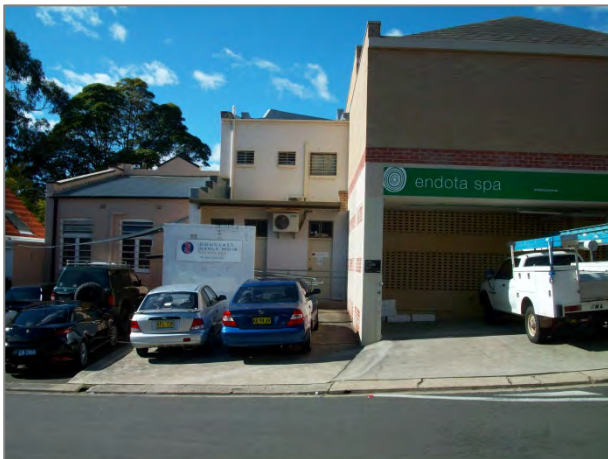
Large developments such as supermarkets can result in a loss of variety and fine grain “human scale” of shop fronts.



The quality of the public domain in the vicinity of the Coles supermarket and existing Turramurra Library on Ray Street is significantly compromised by the large expanse of at-grade car parking, varied terrain and lack of defined pedestrian paths, making it difficult for pedestrians to easily traverse the site and access Turramurra rail station.

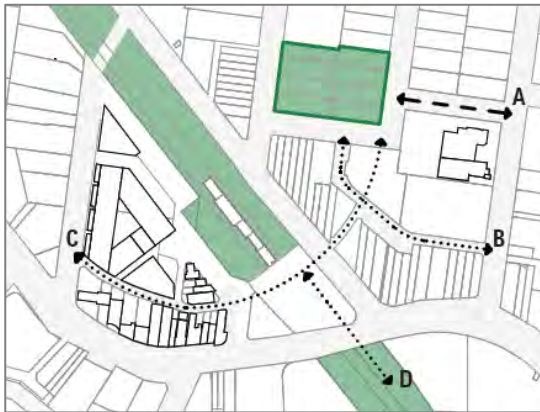


The lack of commercial street frontages along Ray Street and poor pedestrian paths also impacts on the quality public domain. Ray Street does not reflect the general character of Turramurra.



The lack of pedestrian footpaths and predominance of parking and waste facilities detract from the safety and useability of Forbes Lane and Gilroy Lane.

What are the opportunities to improve and enhance Turramurra?



The Pacific Highway and the rail line and severely inhibit pedestrian and cycle movement in the Local Centre. Opportunities to improve and/or introduce new connections should be actively sought wherever possible.

Consolidating the centre north of the Pacific Highway offers an opportunity to bind the two of the precincts into a single, continuous place within the Local Centre; a land bridge over the railway would further support this opportunity



The Gilroy Lane car park at the rear of the Rohini Street shops is a major opportunity site to deliver a new, revitalised retail precinct, supported by retail arcades to create a more accessible and functional centre overall.



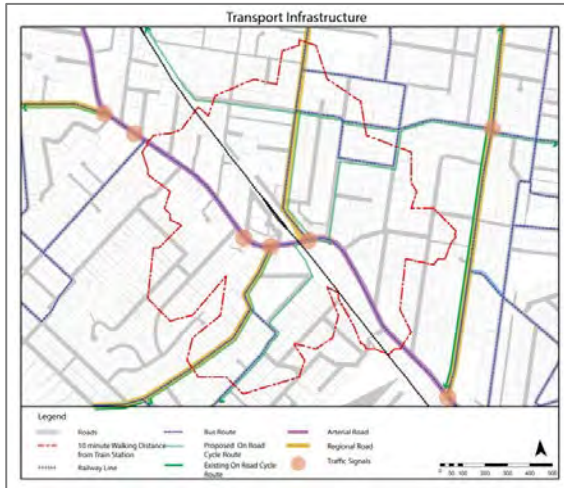
Allowing renewal of shops and retention of the fine grain character along the Pacific Highway on both the northern and southern frontages, coupled with improved connectivity, could encourage pedestrian activity to return to this part of the centre.

The geometry of the Pacific Highway, as it crosses over the rail corridor, presents an opportunity to consolidate this retail strip, as traffic slows to pass through the centre

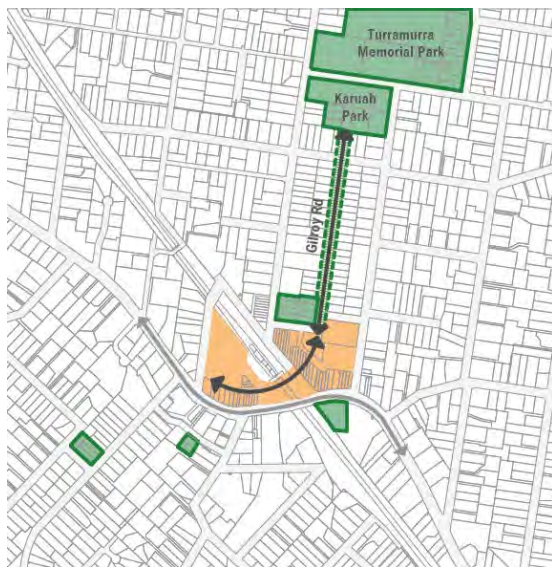


The planned Turramurra Community Hub has the potential to create a 'heart' of the Local Centre. Council's adopted master plan proposes a new town square and park as well as library and community centre.

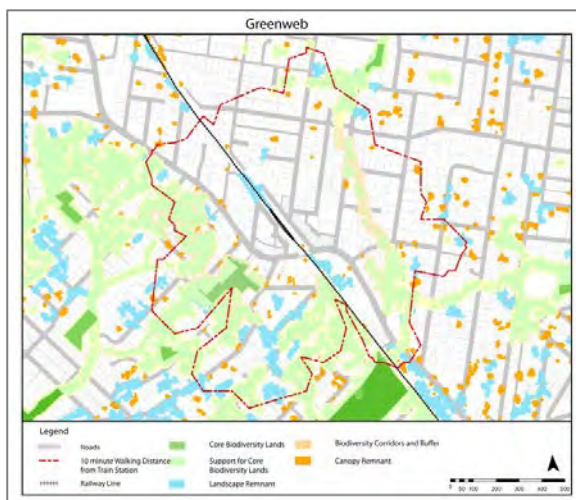
Facilitate connections to the Hub site from the highway and over the rail corridor for improved linkages for pedestrians



There is an opportunity to provide regional north-south pedestrian and cycle ways through Turramurra utilising the rail corridor and proposed new rail bridge



There is potential for Gilroy Road to become a green corridor/tree lined boulevard to link Turramurra Memorial Park, Karuah Park and the Local Centre. This key linear connection would offer a legible, safe and direct route for walkers, runners and cyclists to recreation and exercise opportunities. Opportunity to build on and enhance the rail corridor as a “green corridor”



The Green Grid provides an aspirational blueprint for a corridor incorporating ecological, hydrological, recreational and cultural pathways across Sydney. Riparian corridors, open space and tree-lined streets across Turramurra provide the potential to formalise connections between Lane Cove National Park to the south and Ku-ring-gai National Park to the north of Turramurra, via Lovers Jump Creek, as well as opportunities for tree planting and greening along the Pacific Highway corridor. Refer to map – *Green Grid* in Section 4 –Sustainability.

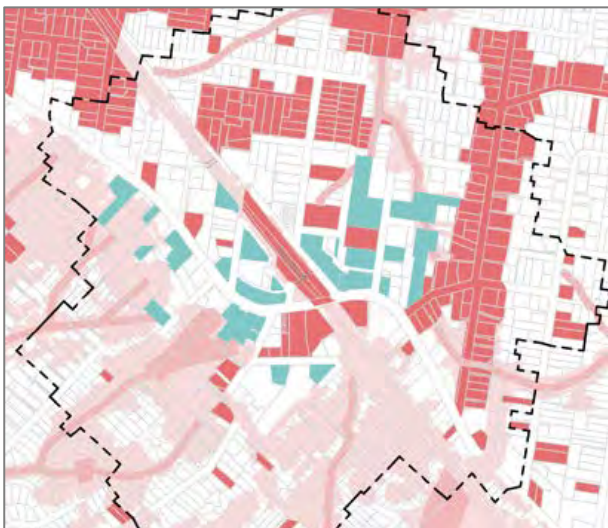
Principles for Turramurra Local Centre



Retain low scale, fine grained character of the main street shops on the Pacific Highway and Rohini Street. Encourage infill developments with fine grained commercial and retail street frontages.



Consolidate the Local Centre on the northern side of the Pacific Highway by prioritising the expansion of retail, commercial and residential uses on the northern side of the Pacific Highway. Investigate potential for a land bridge over the rail line connecting William Street with Rohini Street.



Ensure appropriate interface and separation between future development and Heritage Conservation Areas (HCAs) and Heritage Items.



Increase the number of north-south (primary) and east-west (secondary) connections to improve the connectivity of Turrumurra Local Centre. Use the rail corridor to provide a direct pedestrian route along the corridor to the Local Centre and Turrumurra rail station from surrounding residential areas. Encourage the activation and use of laneways (e.g Forbes and Gilroy Lanes) for alternative pedestrian movement through the centre and to provide quieter retail areas away from the highway.

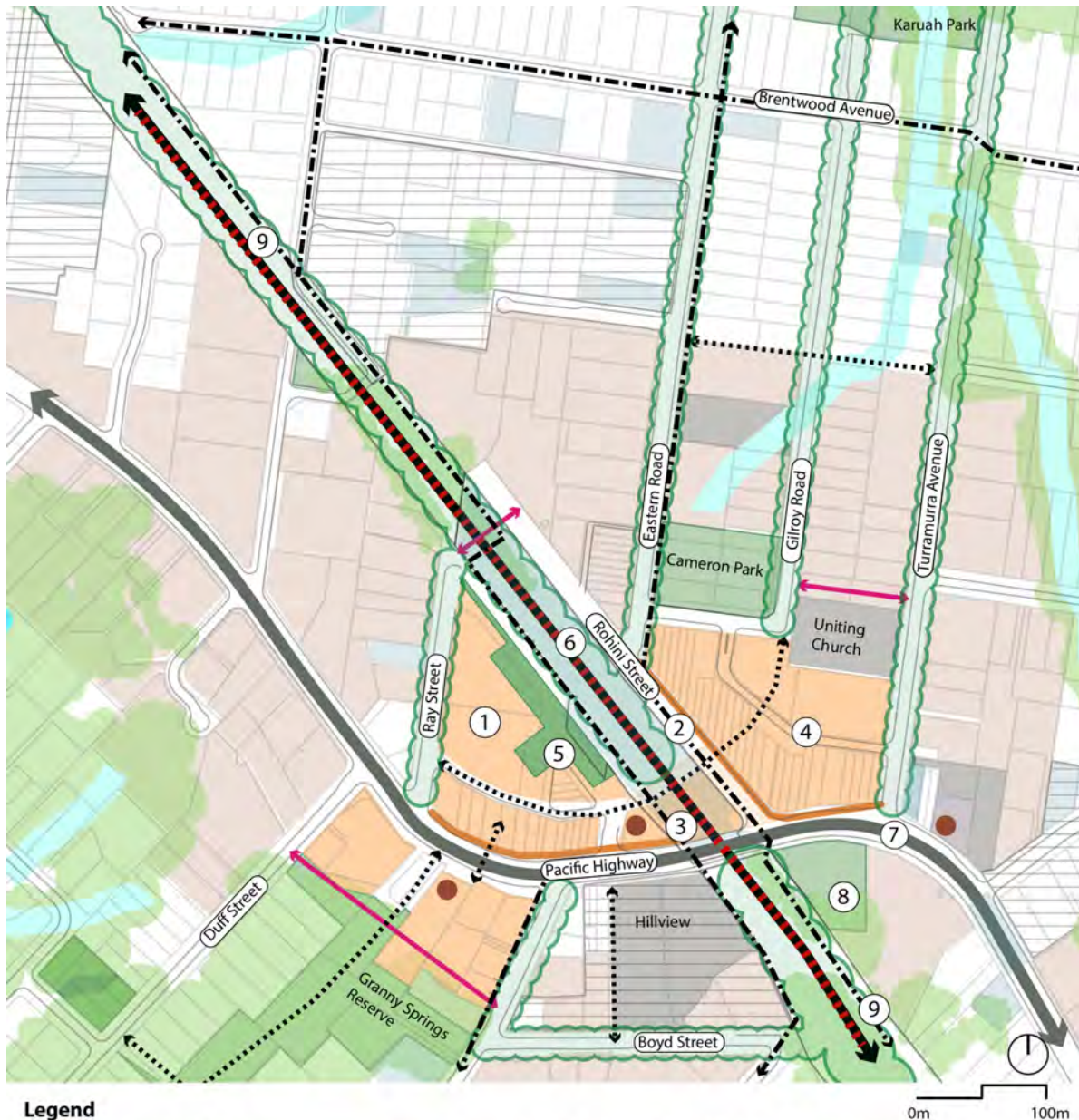


Acknowledge and protect key views in Turrumurra with historical importance. Improve the visual link between Gilroy Lane, Rohini Street, through to William Street.



Enhance the public domain network of streets and open spaces as places which people enjoy and want to spend time in. Upgrade the landscape character and facilities of existing parks around the Centre.

Turramurra Local Centre Structure Plan



Legend

- | | | |
|--|--|---|
| Proposed Mixed Use Development | Existing Strata Apartments and Townhouses/Existing medium and high density zones | Proposed Cycleway |
| Existing Special Uses and Infrastructure | Heritage Items | Opportunity for Proposed Pedestrian Links |
| Biodiversity | Heritage Conservation Area | Opportunities for Proposed Roads/Bridges (Vehicular and Pedestrian) |
| Riparian Corridor | New or Proposed Park | Proposed Green Grid Corridor |
| Key Landmark Sites | Existing Park | Pacific Highway |
| Fine Grain Low Scale Shop Top Housing | | Railway Line |
| Planned Precinct - Turramurra Community Hub including New Library and Community Centre | Planned Precinct - Gilroy Lane | Proposed Traffic Signals |
| Main Street Revitalisation | New Town Square and Park | Existing Community Garden |
| Potential Land Bridge | Opportunity for Upgrade Bus Interchange | Shared pedestrian/cycle path along rail line |

Turramurra Structure Plan

The following are the key components of the Structure Plan that will support the growth and revitalisation of Turramurra Local Centre.

Land use

- Prioritise expansion of retail, commercial and residential uses on the northern side of the Pacific Highway to overcome the divisive impact of the Pacific highway;
- Retain and protect areas of low density housing on steeply sloping land, to south and west of highway to protect the significant tree canopy, biodiversity and riparian corridors; and
- Ensure appropriate interface and separation between future development adjoining Heritage Conservation Areas and Heritage items.

Built form

- Work with TFNSW to investigate potential for land bridge development over the railway connecting east-west and linking the two sides of Turramurra;
- Ensure gateway sites defined by axial vistas along the Pacific Highway have appropriate building forms;
- Retain low scale, fine grained character of main street shops on the Pacific Highway and Rohini Street; allow sensitive infill redevelopment to maintain the fine grain character while introducing bespoke housing above; and
- Maintain and upgrade existing pedestrian lanes and arcades through the main street shops.

Movement

- Work collaboratively with TFNSW/RMS to define road corridor widths, building setbacks, traffic speed, tree planting requirements among others to deliver improved place functions along the Pacific Highway within the Local Centre;
- Work collaboratively with TFNSW and Sydney Trains to provide continuous pedestrian and cycle link along the north shore rail line between Hornsby and Chatswood including a connection under the Pacific Highway at Turramurra;
- Work collaboratively with TFNSW and Sydney Trains to protect and expand the green corridor along the north shore rail line;
- Provide a pedestrian and cycle connection from the rail station to Karuah Park/Turramurra Memorial Park to the north;
- Provide a new east-west pedestrian/cycle way linking with existing walkway from Cherry Street through to King Street and Wonga Wonga Street;
- Investigate potential for a pedestrian overpass over Pacific Highway between Ray Street and Kissing Point Road; and
- Provide new trafficable bridge over rail line at end of Ray Street with pedestrian and cycle access as part of the Turramurra Community Hub Project.

Key sites

- Master plan key sites to ensure high levels of community infrastructure;
- Continue to deliver the Turramurra Community Hub based on Council's award winning master plan as the heart of the centre; and
- Master plan Council owned land on Gilroy Lane in conjunction with adjoining land owners to deliver new revitalised retail precinct.

Streetscape

- Enhance Gilroy Road streetscape to create a tree-lined boulevard;
- Reduce through-traffic on Rohini Street by removing the traffic signals at the intersection with the Pacific Highway;
- Provide new traffic signals at Turramurra Avenue and Pacific Highway intersection;
- Create a new public street connecting Turramurra Avenue and Gilroy Road;
- Undertake streetscape improvements to Rohini Street including expansion of footpath areas for outdoor dining; and
- Upgrade bus interchange on Rohini Street in collaboration with TfNSW.

Public space

- Provide a new town square and park as part of the Turramurra Community Hub Project;
- Connect the newly developed Cameron Park with Karuah Park via a green-link along Gilroy Road;
- Connect the newly created Allan Avenue Reserve (construction due to commence in 2019) with rail station via Granny Springs Reserve; and
- Maintain and support existing community garden and investigate potential for improved connection with Hillview.

Lindfield Local Centre

Ku-ring-gai Local Planning Priority

K11. Promoting Lindfield as a thriving and diverse village centre

This priority will support the emerging urban culture of Lindfield Local Centre by encouraging a vibrant mix of uses to service the local community. Improvements will support the provision of new housing, contemporary retail environments, new parks and community facilities offering local people exciting opportunities to shop and eat and socialise, both during the day and night.

Background

Lindfield is one of Ku-ring-gai's largest Local Centres with its own unique character largely typified by fine examples of federation and inter-war housing, established private gardens, generous tree canopies, topographically challenging terrain, local and district view corridors and a mix of cafes, retail and professional services. Lindfield contains a considerable number of Heritage Conservation Areas and Heritage Items. The 19th and 20th century heritage listed housing represents exceptional examples of periodic architecture. There are two primary schools and a pre-school within the Local Centre, in addition to a number of churches and civic buildings.

Not unlike the majority of Ku-ring-gai's Local Centres, the Pacific Highway and rail corridor bisect the Lindfield Local Centre, creating two distinct halves – the Pacific Highway frontages serving as the centre's main 'commercial street' characterised by a fine grain collection of predominantly two storey shop top commercial premises, with limited on street parking. Commercial uses include small-scale specialty retail and eateries, as well as larger format retail including a Coles supermarket. Like many Sydney high streets located on major arterial roads, the retail offering suffers from poor pedestrian amenity due to the impacts of high volumes of traffic travelling on the Pacific Highway. Similarly, the limited number of opportunities for pedestrians to safely cross the Pacific Highway hinders the ability of people to easily and conveniently move from one side of the centre to the other.

Lindfield Avenue on the eastern side of the centre, serves as the traditional 'main street' retail precinct providing a variety of local services, including the new Lindfield Shopping Village, cafes, IGA supermarket and Harris Farm, with apartments above.

Activate Lindfield

Ku-ring-gai Council is committed to revitalising key centres in the LGA through a series of urban revitalisation programs, known as 'Activate Ku-ring-gai'. The Activate Lindfield precincts are identified in the Ku-ring-gai Development Control Plan (2016) and involve revitalisation and beautification initiatives focused largely on Council-owned sites. Activate Lindfield seeks to leverage Council-owned sites, in collaboration with private land owners.

The western edge of the Lindfield Local Centre will undergo a period of renewal with the development of the Lindfield Village Hub. The Hub will provide a mix of open space, community buildings including a library and community centre, a town square, new housing, dining and retail outlets, with underground car parking. When completed, the Lindfield Village Hub will offer an attractive and dynamic urban village in the heart of Lindfield, close to public transport, existing residential areas, retail uses and professional services.

The proposed Lindfield Village Green will transform the existing Council-owned car park at Tryon Road into a new, vibrant public space. The Village Green will include a café or restaurant, public plaza for a variety of uses and a basement car park. It will be designed for social gatherings and ease of movement for pedestrian and cyclists, with convenient connections to the Lindfield train station. When complete, the Village Green may host markets, an outdoor cinema, live music and other performances to enliven the area.

Strategic response

As a first step in the place-based planning process Council has prepared draft planning priority for Lindfield Local Centre for community comment. The priority is based on current and past research, community surveys, other community consultation and independent studies. The draft Local Planning Priority aims to support the growth and revitalisation of:

Lindfield as a thriving and diverse village centre

This priority will support the emerging urban culture of Lindfield Local Centre by encouraging a vibrant mix of uses to service the local community. Improvements will support the provision of new housing, contemporary retail environments, new parks and community facilities offering local people exciting opportunities to shop and eat and socialise, both during the day and night.

To support the Planning Priority this LSPS also provides draft statements relating to the character of Lindfield Local Centre; some of the detracting elements of the Centre's character; future opportunities for improvements; draft principles as suggestions to guide future planning; and a draft Structure Plan. As with the Planning Priority the draft Statements and Structure Plan are based on Council policy, current and past research, community surveys, other community consultation and independent studies.

The next step will be to undertake targeted engagement with the community. This material will form the foundations for further engagement with the community to assist with the preparation of the housing scenarios exploring potential locations for new housing and Local Centre Structure Plans.

Lindfield Local Centre – Planning Principles and Structure Plan

The following sections describe opportunities and constraints, planning principles and a structure plan to guide future development of Lindfield Local Centre. These are based on Council policy, previous studies and community consultation undertaken in relation to the future of the centre.

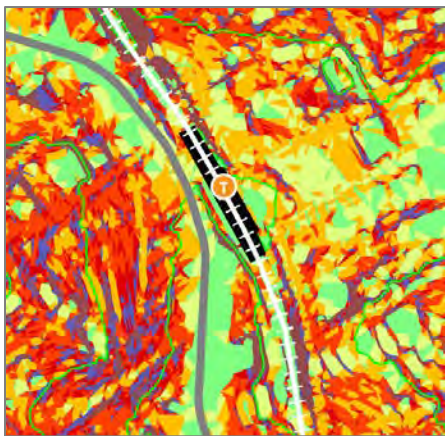
What gives Lindfield Local Centre its unique character?



The Pacific Highway retail strip on both the eastern and western frontages provide the principal point of address and entry for shops and businesses in the Centre. This area is typified by small-scale shop top housing and a fine grain mix of commercial/retail buildings largely in the Art Deco style, which are typically two storeys in height. While some of the street frontages have been modernised, the intimate scale and original 'high street' character remains.



Lindfield Avenue shops serve as the 'main street' retail area for the Centre characterised in part by heritage listed buildings (Inter-War Spanish Mission style). Its location, set back from the Pacific Highway with convenient access to the train station, affords a higher degree of pedestrian amenity, encouraging the emergence of cafes and restaurants that are popular with local residents.



A defining characteristic of Lindfield is its topographical variation with the eastern side being generally flat while the western portion of the Centre falls steeply down towards the Lane Cove River valley. This topography affords localised and district views.

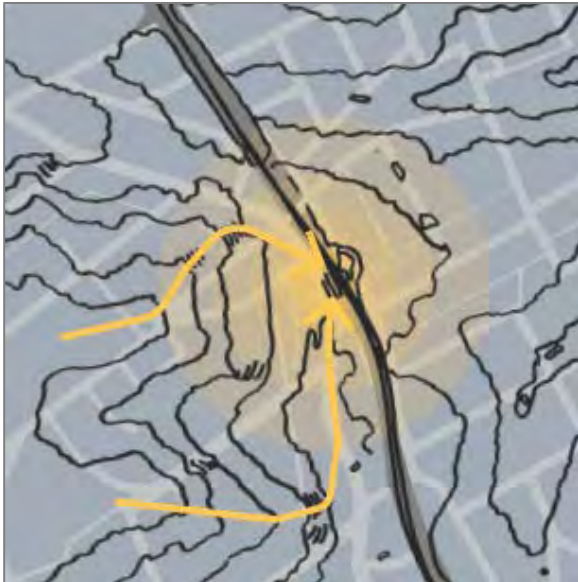


Lindfield, meaning 'clearing in the lime forest', has a rich history, from its Aboriginal origins as the home of the *Guringai* people. To its European heritage, dating back to the early 19th Century, when the area was first known for its timber-getting industry. By the 1840s, fruit growing and farming were the area's primary industries. Settlement began to increase in the latter part of the century, with the opening of Lindfield rail station in 1890. During the years immediately after World War II the suburb experienced significant growth.

What detracts from Lindfield's unique character?



The Pacific Highway, Lindfield Avenue and the rail corridor run parallel through Lindfield Local Centre separating the two sides by a distance of almost 100 metres.



The steeply sloping topography on the western side of the Centre presents a number of challenges key amongst these is impeded walkability and access to the train station and retail/commercial core.



Pedestrian connectivity in the Centre is significantly compromised by the limited number and quality of crossing points for pedestrians and cyclists, over the Pacific Highway. There are only two at-grade crossing points within the centre the first via the rail station and the second via a rail underpass on Balfour Road.



A number of the rear lanes and side streets of the Centre lack activation and/or visual interest; they are car-dominated, in turn impacting on the quality and experience of the public domain and are not conducive to a positive pedestrian experience.



Despite the area's notable green, leafy character, there is a considerable lack of local parks and publicly-accessible open space within walking distance of the train station, in turn limiting opportunities for passive and active recreation within the Centre.



While the existing shops on the highway provide a variety and fine grain 'human scale' of shop fronts and improve the vitality of the public domain, some of the buildings detract from the quality of the street

What are the opportunities to improve and enhance Lindfield Local Centre?



The Pacific Highway and rail corridor that split the Centre severely inhibit pedestrian and cycle movement between the two halves of the Centre. Opportunities to improve and/or introduce new connections should be actively encouraged, with particular focus on new links to the Lindfield Village Hub site.



The renewal of existing shops, infill development and retention of the fine grain character along the Pacific Highway coupled with improved connectivity, could encourage greater pedestrian activity in this part of the Centre.



The opportunity exists to improve the amount and quality of open spaces. This is particularly important given the projected growth in population. Increased open spaces in strategic locations will improve connections to the broader open space network.



Recognise the two distinct sides of the Centre and encourage uses and facilities that provide different experiences and facilities east of the highway and west of the highway.

Principles for Lindfield Local Centre



Continue to strengthen the role of Lindfield Avenue as the 'main street' retail area providing local services for Lindfield.



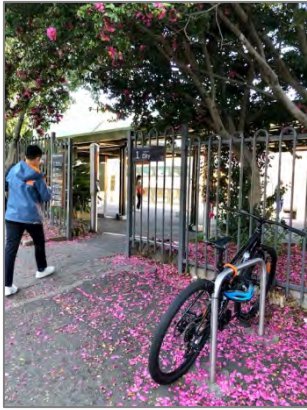
Maintain, strengthen and enhance the role of the Pacific Highway as the main commercial street for Lindfield. Retain the low scale, fine grained character of the existing shops on the Pacific Highway. Ensure that infill development respects the inherent built form character of this area, providing continuity of scale.

Create new through-block pedestrian links:

- Pacific Highway through to Woodford Lane and Drovers Way;
- from Lindfield Avenue through to Havilah lane and Milray Street;
- from Nelson Road to Havilah Road; and
- from Bent Street to Beaconsfield Parade.



Establish Woodford Lane as a secondary retail street, activating the 'back of house' of the existing shops fronting the western side of the Pacific Highway. The focus will be on leisure orientated retail uses such as restaurants/cafes and outdoor dining overlooking the new urban park to be provided on the Hub site. Improve the visual link between the Pacific Highway and Woodford Lane.



Ensure safe and accessible connections within the Local Centre and to adjacent areas, for all users, through the integration of transport, with a focus on active and public transit.

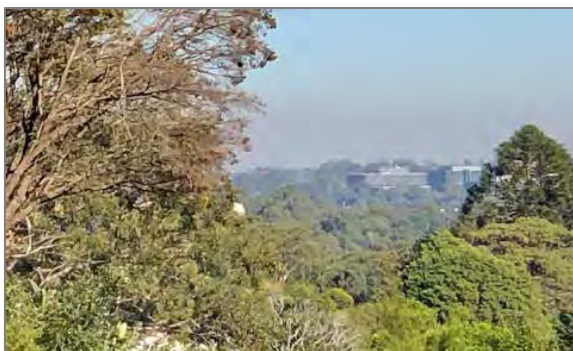
Maximise the number and quality of crossing points over the Pacific Highway, with particular focus on pedestrians and cyclists. This is fundamental to 'knitting' the constituent parts of the Centre together.



Enhance the public domain network of streets as places which people enjoy and want to spend time in. Upgrade the landscape character and facilities of existing parks around the Centre.

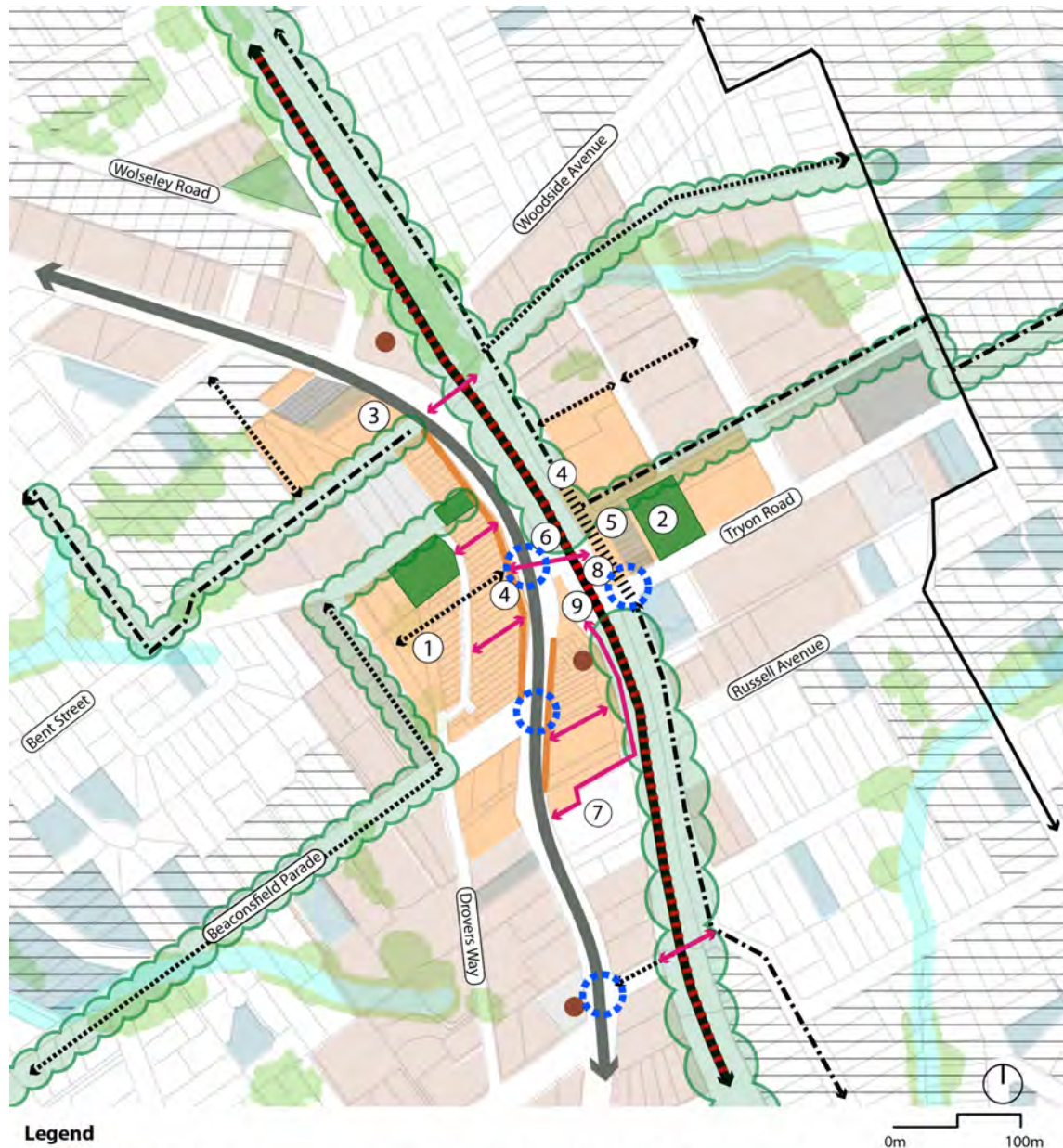


Ensure appropriate interface and separation between future development adjoining Heritage Conservation Areas (HCAs) and Heritage Items.



Acknowledge and protect key views and view corridors with historical and scenic importance.

Lindfield Local Centre Structure Plan



Legend

Proposed Mixed Use Development	Existing Strata Apartments and Townhouses/Existing medium and high density zones	Existing cycleway
Existing Special Uses and Infrastructure	Heritage Items	Proposed Cycleway
Biodiversity	Heritage Conservation Area	Proposed Separated Cycleway
Riparian Corridor	New and Proposed Park/ Public Space	Opportunity for Proposed Pedestrian Links
Key Landmark Sites	Existing Park to be Upgraded	Improved Existing Pedestrian Links
Fine Grain Low Scale Shop Top Housing	Proposed Green Grid Corridor	Pacific Highway
		Railway Line
		Proposed Traffic Signals

- | | | |
|--|--|---|
| ① Planned Precinct - Lindfield Village Hub | ④ Main Street/Highway Revitalisation | ⑦ Planned Precinct - Lindfield Living |
| ② Planned Precinct - Lindfield Village Green | ⑤ Heritage Frontage Upgrade | ⑧ Lindfield Station Pedestrian Overpass |
| ③ Proposed Coles Redevelopment | ⑥ Potential Over Highway Pedestrian Link | ⑨ Station Entry Plaza Upgrade |

Lindfield Structure Plan

The following are the key components of the Structure Plan that will support the growth and revitalisation of Lindfield Local Centre.

Land use

- Support the two-sided nature of Lindfield by providing a vibrant mix of retail, open space and community facilities on each side of the Centre so that residents need not travel between the sides to meet their daily needs;
- Redress the historical imbalance of the centre by providing a new mixed use community hub on the western side of the centre as a vibrant new community heart for residents;
- Retain and protect areas of low density housing on steeply sloping land, to the west of highway, that support significant tree canopy, biodiversity and riparian corridors; and
- Retain and protect existing Heritage Conservation Areas and Heritage items and ensure appropriate interface and separation between future development adjoining Heritage Conservation Areas and Heritage items.

Built form

- Ensure gateway sites defined by axial vistas along the Pacific Highway have appropriate building forms;
- Retain low scale, fine grained character of main street shops on the Pacific Highway; allow sensitive infill redevelopment to maintain the fine grain character while introducing bespoke housing above; and
- Maintain and upgrade existing, and provide new pedestrian lanes and arcades through the main street shops.

Movement

- Work collaboratively with TfNSW/RMS to define road corridor widths, building setbacks, traffic speed, tree planting requirements among others to deliver improved place functions along the Pacific Highway within the Local Centre;
- Improve and enhance the pedestrian and cycle connection from the rail station east to the Twin Creeks Track and on to Middle Harbour;
- Provide a new pedestrian/cycle way connection west from the rail station west to the Lane Cove River National Park;
- Work collaboratively with TfNSW investigate potential for a pedestrian overpass over Pacific Highway connecting to the rail station concourse;
- Provide a new traffic signals at
 - the intersection of Strickland Avenue and Pacific Highway;
 - Intersection of Beaconsfield Parade and Pacific Highway;
 - Tryon Road and Lindfield Avenue; and
- Provide signalised pedestrian crossing on the highway connecting the Lindfield Village Hub and the rail station.

Key sites

- Deliver the Lindfield Village Hub as a new revitalised retail precinct.

Streetscape

- Upgrade and enhance Lindfield Avenue and the Pacific Highway streetscapes to create high quality pedestrian environments;

- Create new public streets connecting Beaconsfield Avenue with Bent Street and connecting Tryon Place with Pacific Highway.

Public space

- Provide a new town square and park as part of the Lindfield Village Hub Project;
- Provide a Village Green on Tryon Road;
- Upgrade Ibbitson Park to urban park standards;
- Provide open space links west and east to nearby reserves and National Parks;
- Create a small urban plaza by closing Bent Street at the intersection of Pacific Highway; and
- Work collaboratively with TfNSW and Sydney Trains to upgrade and improve the railway gardens and the general rail area.

Local Character and Heritage

Local character

Ku-ring-gai Local Planning Priority

K12. Managing change and growth in a way that conserves and enhances Ku-ring-gai's unique visual and landscape character

Background

Ku-ring-gai's unique natural landscape is due to its elevated position in Sydney's north, high rainfall, alluvial soils, deep gullies, 177kms of waterways and creeks and three major water sub-catchments feeding into Sydney Harbour and the Hawkesbury River Estuary.

The area adjoins three National Parks (Ku-ring-gai Chase, Garigal and Lane Cove) and contains significant urban forests and tracts of local bushland as well as a visually significant tree canopy across both natural and urban areas. These landscape features give the area distinctive natural beauty and differentiates Ku-ring-gai from other parts of Sydney.

Ku-ring-gai's urban areas developed as a series of villages along the main ridgelines, each with their own identity, and bounded by or close to large tracts of natural bushland, creek systems and national parks. While subdivision and residential development have connected the villages into larger suburbs over time, their distinct characteristics still largely remain intact. Each suburb has its own unique character reflecting the local natural bushland, heritage conservation areas or more recent post war development.

The established tree canopy in Ku-ring-gai is a defining characteristic and essential to the 'look and feel' of Ku-ring-gai. Street trees are also an important part of this open space landscape of Ku-ring-gai. They provide shade and aesthetic value, relief from heat stress, habitat for fauna and create corridors for their movement. Good management of our street trees will need to continue to protect and enhance wildlife habitats.

Ku-ring-gai has a strong legacy of heritage fabric including items and places of strong historical, social and architectural value. Both European and Aboriginal heritage is respected and provides a sense of living history and a physical link to the work and way of life of earlier generations.

The St Ives Showground Precinct is an area within Ku-ring-gai with significant local character. The site contains large canopy trees and pockets of bushland within the site. The position of the site on the ridge provides views through Ku-ring-gai Chase National Park and surrounding bushland. The landscape of the precinct has evolved through its various functions as both an army camp, showground and recreation space. The character of the precinct is contained in the diversity of the natural and built elements, and the spaces and views between them.

The physical appearance of Ku-ring-gai, the connectedness of green leafy areas encompassing both public and private lands and the physical location of urban areas within a well-defined geographic boundary, have been critical contributory factors to a sense of place.

Council has put in place a comprehensive suite of planning controls, guidelines and initiatives to ensure new development does not detrimentally impact on Ku-ring-gai's unique landscape and heritage character. Population growth and urban change present major challenges for all levels of government. Population growth and residential development, proposed in the *North District Plan*, will require Council to review its current plans and controls. The responses need to ensure that new development continues to protect Ku-ring-gai's unique character, achieves quality design outcomes and makes a positive contribution to Ku-ring-gai's liveability.

Strategic response

While Council has over time developed a comprehensive suite of planning controls aimed at ensuring new development does not detrimentally impact on Ku-ring-gai's unique landscape and heritage character, there is relatively less in the way of mapping, formalised policies or strategies in place to protect scenic and cultural landscapes. Some zoning has considered scenic values as, for example an objective of the E4 Environmental Living zone is "*to provide for low-impact residential development in areas with special ecological, scientific or aesthetic values*". Currently Council's approach is a case-by-case merit assessment system. Scenic and Cultural landscapes are included in some Council Plans of Management for parks, sportsgrounds, bushland reserves.

The *Community Strategic Plan – Our Ku-ring-gai 2038* includes long term objectives relating to cultural heritage landscape preservation, and preserving the unique visual character of the Ku-ring-gai LGA.

A *Scenic and Cultural Landscape Study* needs to be prepared that identifies areas of special landscape character relating to views, visual quality, tree canopy, street trees and topography. In addition, the development of a Character Study and Strategy is required to identify the important visual and landscape character elements of the LGA that need to be protected and enhance including landmark locations, gateway entries, important views, movement corridors, centres, HCAs and heritage items and natural vegetation.

The NSW Government's *Local Character and Place Guideline* (February 2019) provides a framework to clarify the key influences of local character and place, how local character can be integrated into the planning system and current approaches for the inclusion of local character in local planning.

The Guidelines provide three possible approaches on how a council could integrate local character into local land use planning. Given the importance of the unique visual character of Ku-ring-gai to the community and the role it plays to the sense of place, the LEP overlay and local character statement approach (Approach 2) is the appropriate strategic direction. This involves:

- LSPS translates the strategic direction & broad character influences
- Standalone local character statement is prepared including character assessment & desired future character
- Local character overlay in LEP & LEP is reviewed to ensure zones, objectives & standards align to local character statement
- DCP is updated to ensure controls achieve desired future character.

The map *Local Character and Heritage* identifies some elements within Ku-ring-gai which contribute to the local character and scenic and cultural landscape value of the area, including tree canopy, heritage conservation areas, ridgelines and National Parks, bushland, nature reserves and other public open space.

Interface areas

The Ku-ring-gai LGA has a significant diversity of intact and valued land form, ecology, cultivated and natural landscapes, and historical and contemporary urban-scapes. The Interface areas are those tracts of land that are located in between these diverse lands and serve to transition between the differing scale, land use, landscape and character; or, that sit adjacent to localities with significant environmental and/or heritage value and require special consideration.

Principles for interface areas

- Development on interface areas are to:
 - provide a buffer and/or transitional development between differing scales of building, or differing land use types, or identified character areas;
 - retain an appropriate setting and visual curtilage to heritage items and heritage conservation areas, and the conservation of scenic and cultural landscapes; and
 - provide a responsive transition between natural areas and urban areas, where ecological values are protected.

Ku-ring-gai Council	Ku- ring-gai Local Planning Priority <i>K12. Managing change and growth in a way that conserves and enhances Ku-ring-gai's unique visual and landscape character</i>
	Actions <ul style="list-style-type: none"> ➤ Define Ku-ring-gai's unique visual and landscape character through community engagement (<i>short term</i>) ➤ Undertake a Scenic and Cultural Landscape Study to identify areas of special landscape, views and vistas, visual quality, tree canopy topography (<i>short term</i>) ➤ Implement recommendations from Scenic and Cultural Landscape Study (<i>short term</i>) ➤ Undertake Local Character Study in accordance with Department of Planning and Environments <i>Local Character and Place Guidelines February 2019 (short term)</i> ➤ Prepare Local Character Mapping for LEP Overlay and Local Character Statements for DCP (<i>short-medium term</i>)
North District Plan	Planning Priority N6 Creating and renewing great places and local centres, and respecting the District's heritage.
	Planning Priority N17 Protecting and enhancing scenic and cultural landscapes
Greater Sydney Region Plan	Objective 12 Great places that bring people together
	Objective 28 Scenic and cultural landscapes are protected

Heritage

Ku-ring-gai Local Planning Priority

K13. Identifying and conserving Ku-ring-gai's environmental heritage

Background

Ku-ring-gai has a rich and long history; however, this section discusses only post contact history and the associated heritage places. Please also see Aboriginal Communities and Cultural Heritage.

In Ku-ring-gai there are over 950 heritage items, 24 of these heritage places are recognised on the NSW State Heritage Register, and there are over 50 heritage conservation areas, covering some 627 hectares or 7% of Ku-ring-gai. The heritage of Ku-ring-gai comprises a rare blend of fine domestic architecture within a landscape of indigenous forests and established gardens. Ku-ring-gai's places of environmental heritage significance include¹²:

- **Late nineteenth and twentieth century architecture**
The built heritage of Ku-ring-gai is expressed in the outstanding quantity, quality, depth and range of its late nineteenth and twentieth century architecture. It contains houses designed by many of Australia's prominent nineteenth and twentieth century architects who have influenced the mainstream of Australian domestic architecture nationally; including John Sulman, Howard Joseland, Hardy Wilson, Leslie Wilkinson and Harry Seidler.
- **Heritage Conservation Areas**
Ku-ring-gai's heritage conservation areas are evidence of twentieth century town planning and conservation philosophies. The separation of residential areas from other urban uses, subdivision patterns reflects a range of suburban aspirations, the use of residential district proclamations to create and retain domestic environmental amenity, street tree planting, and post-war neighbourhood planning. The map *Local Character and Heritage* identifies the existing Heritage Conservation Areas.
- **Transport infrastructure**
The North Shore Railway Line is represented by the heritage listed railway stations in Ku-ring-gai whose presence demonstrates the bargaining power of public works and services in gaining votes for Federation, and whose construction acted as a catalyst for Federation and Inter-war residential subdivisions.
- **National Parks and remnant forests**
The natural heritage values of Ku-ring-gai are evident in the surrounding national parks, the many nature reserves, adjacent waterways and in Ku-ring-gai's public and private gardens, where remnants of the original Blackbutt and Blue Gum forests and the associated woodlands, understorey and dependent fauna are conserved.
- **Places significant for their cultural associations**
Ku-ring-gai's coherent aesthetic values resulting from a combination of elevated locations, good soil, large trees, extended views, fine architecture and established gardens inspired artists such as Grace Cossington Smith and Lionel Lindsay, visionaries such as John Sulman and J.J.C. Bradfield and writers such as Ethel Turner who honoured Ku-ring-gai with their works.

¹² Adapted from the Statement of Significance for Ku-ring-gai contained within the Ku-ring-gai Heritage Study (1987).

- **Places of technical and design significance**

Technical significance and design innovation are expressed in many of Ku-ring-gai's heritage listed buildings and gardens, demonstrating some of the earliest examples of work from students of Australia's first school of architecture at Sydney University, some of the earliest use of cavity walls and Marseilles tiles in NSW, and innovative landscape designs of renowned exponents such as Edna Walling, Paul Sorensen and Jocelyn Brown.

- **Evidence of the stages of post contact development**

Ku-ring-gai has several distinct periods of development that is evidenced through numerous archaeological sites, heritage items and heritage conservation areas. The layers of development are from the very early timbergetting c.1820, the long period of relative isolation from built suburbia, the orcharding and farming, followed by the rapid growth of suburban development in response to the elevated topography, 'clean air' and the establishment of the railways in 1890.

- **Gardens and landscapes**

Numerous heritage gardens and historic landscapes evidence a variety of garden designs and horticultural styles and that are in harmony with the natural landscape such as those at Swain Gardens, Bobbin Head, large private estates and the gardens at railway stations and well-designed gardens of cultivated botanical specimens such as Eryldene and the Ku-ring-gai Wildflower Garden.

The major heritage studies that have influenced heritage planning in Ku-ring-gai are:

- **Ku-ring-gai Heritage Study (1987)**

Prepared by Robert Moore, Penelope Pike, Helen Proudfoot, and Lester Tropman and Associates the study included a historical analysis of the thematic development of Ku-ring-gai, and a field study of the entire LGA to locate and record known and predicted sites, and to identify and assess other places of potential heritage significance. Approximately 650 properties were added as heritage properties as an outcome of this study.

- **Ku-ring-gai Urban Conservation Area Studies (2000-2005)**

Godden Mackay Logan were commissioned by Council to review the Urban Conservation Areas identified in the National Trust publication "Housing in NSW between the Wars".

- **Ku-ring-gai Town Centres Heritage Review (2006)**

Ku-ring-gai Council commissioned City Plan Heritage to undertake a review of heritage items within the Gordon, Lindfield, Pymble and Roseville Town Centres. The report includes a list of the items reviewed and recommendations.

- **Ku-ring-gai Town Centres Heritage Conservation Area Review (2008)**

Paul Davies Pty Ltd reviewed potential heritage conservation areas (HCAs) within the draft Local Centres LEP. The HCAs were drawn from the Godden Mackay Logan's Heritage and Neighbourhood Character Study (2000) and others.

- **Northern and Southern Heritage Conservation Area Reviews (2010)**

In separate studies Paul Davies Pty Ltd and architectural Projects reviewed heritage conservation areas (HCAs) across the Ku-ring-gai local government area. The HCAs were drawn from the National Trust study Housing in NSW between the Wars (1996) prepared by Robertson and Hindmarsh and the Godden Mackay Logan Urban Conservation Areas Studies (2000-2005).

While Ku-ring-gai's heritage extends across the LGA and is representative of the area's historic themes, the pattern of early development along the main ridgeline and the North Shore Railway Line has led to much of Ku-ring-gai's heritage being concentrated in the Primary Local Centres of Lindfield, Gordon and Turramurra, and the Secondary Local Centers of Roseville, Killara, Pymble and Wahroonga. These Centres meet the

fundamental criteria of the *Greater Sydney Region Plan* and the *North District Plan* as suitable locations for additional housing. The objective of heritage conservation and the potential future increased residential density in these Centres may lead to issues of conflict. Planning Priority N6 in the *North District Plan* is “creating and renewing great places and local centres, and respecting the District’s heritage”. The Plan highlights that heritage reinforces an area’s sense of place and identity. New development in the Centres will ideally respond to and respect the cultural values of Ku-ring-gai’s local heritage through sympathetic design, retention of appropriate settings, such as the established gardens and tall canopy trees, and appropriately scaled interface.

In 2013, Council received delegation from NSW State Government to make Interim Heritage Orders (IHOs) for items in Ku-ring-gai in accordance with section 25 of the Heritage Act 1977. Since this time Council has made nine interim heritage orders, five resulted in permanent heritage listings. Interim Heritage Orders are intended as an action of last resort to protect places with potential heritage value that are under threat of destruction or despoilment. There is concern amongst the community that the IHO process reduces the confidence of potential property purchasers and developers. Undertaking a comprehensive heritage review would ideally reduce uncertainty around potential heritage significance and reduce the need for Council to use its IHO delegation.

In February 2019, an amendment was made so that *State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004* does not apply to Heritage Conservation Areas within Greater Sydney until 1 July 2020. This temporary change allows Councils to ensure seniors housing provisions align with their local strategic plans.

Strategic response

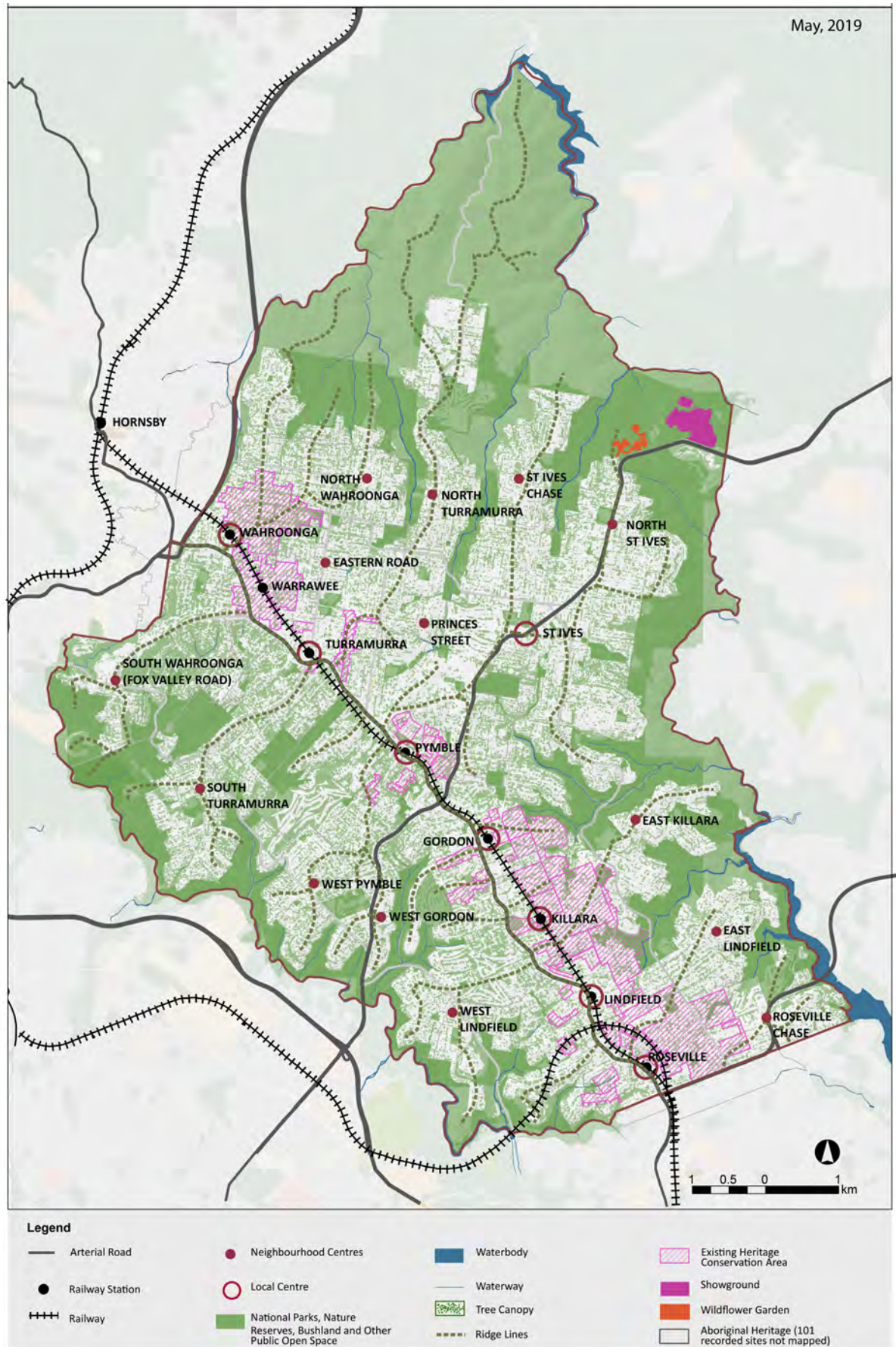
A Heritage Strategy needs to be prepared that identifies the opportunities and challenges for managing Ku-ring-gai’s heritage. The Heritage Strategy will set out the key objectives, priorities and actions required to manage Ku-ring-gai’s heritage both now and into the future.

A strategic approach to heritage listing is required that defines key historic themes, including and beyond those identified in the 1987 study, and identifies and assesses potential heritage items, particularly those places built post-war or places whose significance arises from association with historical figures significant to Ku-ring-gai. A community based thematic heritage study will facilitate meaningful community input into identifying, assessing and conserving Ku-ring-gai’s heritage places.

Seniors housing developments provided under the *State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004* result in poor built form and landscape outcomes that are not consistent with the heritage character and values of the Heritage Conservation Areas within Ku-ring-gai. Council will seek to ensure a permanent exemption of Heritage Conservation Areas within Ku-ring-gai from the *State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004*.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priority <i>K13. Identifying and conserving Ku-ring-gai's environmental heritage</i>
	Actions <ul style="list-style-type: none"> ➤ Prepare a Heritage Strategy (2020-2025) that outlines Ku-ring-gai Council's objectives and actions for the management of heritage in Ku-ring-gai (<i>short term</i>) ➤ Complete a community based thematic heritage study for the Ku-ring-gai local government area and incorporate any new listings in a future LEP (<i>short term</i>) ➤ Liaise with the Department of Planning, Industry and Environment to seek a permanent exemption of Heritage Conservation Areas within Ku-ring-gai from the <i>State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004</i> (<i>short term</i>)
North District Plan	Planning Priority N6 Creating and renewing great places and local centres, and respecting the District's heritage.
Greater Sydney Region Plan	Objective 13 Environmental heritage is identified, conserved and enhanced

Map – Local Character and Heritage



Community and Cultural Infrastructure

Ku-ring-gai Local Planning Priority

K14. Providing a range of cultural, community and leisure facilities to foster a healthy, creative, culturally rich, and socially connected Ku-ring-gai

Background

Ku-ring-gai Council owns some 48 buildings that are used to provide a wide range of community services and facilities for residents including:

- libraries
- halls and meeting rooms
- health and support services
- aged and disabled services
- mental health, counselling and crisis services
- children's services including childcare, kindergarten and preschool facilities
- youth centres
- arts and cultural services/facilities

The total floor space available is approximately 15,000sqm and the break down in terms of building use is:

- 17 community centres / halls
- 4 libraries
- 20 buildings leased to organisations providing community services
- 1 drama theatre
- 6 buildings leased to child care/preschool operators

Council has undertaken extensive planning for the provision of new community facilities. Previous studies include:

- Ku-ring-gai Council Library Facilities Study, 2004
- Cultural Plan 2004-2009
- Ku-ring-gai Community Facilities Strategy, 2009
- Lindfield Community Facilities Study, 2014
- Turramurra Community Facilities Study, 2015
- Cultural Needs Analysis, 2015
- Gordon Civic Hub Feasibility Study, 2017
- Ku-ring-gai Destination Management Plan 2017 to 2020
- Ku-ring-gai Community Facilities Strategy – Part 1 – Community Centres and Libraries, 2018
- Ku-ring-gai Community Facilities Strategy – Part 2 – Creative Arts Facilities (under preparation)

The findings of these studies have been incorporated into Council's strategic planning documents and since 2010 Council has been actively collecting development contributions to partially fund the design and construction of new facilities.

Key findings from past studies are summarised below:

- There are significant inadequacies in the current provision of library facilities in the LGA, impacting on the council's ability to provide modern high quality library services. Branch libraries regularly experience overcrowding and are out-dated in terms of finishes, fitout and furniture.
- Council's community buildings are on the whole inadequate to meet the needs of the existing population and will be unable to absorb growing numbers of users, or respond to changing interests and needs

- The majority of facilities have small spaces that are not flexible and limited in their capability to accommodate many uses with many facilities accommodating a single or limited number of users
- The majority of existing facilities in Ku-ring-gai are old, out-dated and no longer fit for purpose.
- The condition of some facilities is extremely poor, and a number of facilities have been closed due to safety issues related to their poor condition
- Existing facilities are well-used and at, or close to, capacity, despite their poor condition and
- There is a high and growing demand for space for larger meetings and group activities, functions, events and performances
- The northern parts of Ku-ring-gai have less community facilities than the southern parts – this means that some residents have better access than others. The eastern sector/St Ives area has a lack of community facility space for community use for meetings, classes activities (such as dance, fitness and playgroup) and community hire for private functions
- There are few dedicated spaces that can be used for large visual/creative arts groups within the LGA. The Ku-ring-gai Art Centre is at capacity and has limited or no opportunity for future growth;
- Council does not have a built-for-purpose gallery space. The Ku-ring-gai Art Centre has a small exhibition space however artists are frequently required to use other private spaces to meet their needs;
- Council does not have a Heritage Resource Centre that provides easy to access information;
- Many practicing artists utilise studio space outside of the LGA due to a lack of available space locally;
- There are no publicly accessible film making or multimedia facilities available in the LGA;
- Council currently does not provide sound recording studios for local musicians; and
- The provision of low cost studio spaces can also promote and support artist-in-residence programs.
- There is a need for an integrated and strategic planning framework in relation to the location and management of Council's cultural venues.

Strategic response

In 2018 Council prepared and adopted a strategy to guide the planning and design of community centres and libraries across Ku-ring-gai over the next 20-30 years.

The Strategy proposes the development of a network of facilities that work together to collectively meet the needs of the Ku-ring-gai population, this network be implemented through a hierarchy of facilities including sub-regional, district, and neighbourhood level facilities. In Gordon the plan is to build a new sub-regional civic hub with a cultural component, new council chambers and administrative offices, alongside the Gordon library. This facility will be large enough to service the whole of Ku-ring-gai. Nearby, Marian Street Theatre in Killara will be renovated and re-opened as a fully functioning drama theatre.

New community hubs are proposed in the Local Centre areas of Lindfield, St Ives and Turramurra. A community hub is where community facilities are grouped together in one building close to the shops, public transport and parks to make it easier for people to visit. The plan envisages a new hub building in each centre with a library and community centre combined. Master plans have been prepared and adopted for the Lindfield Village Hub and the Turramurra Community Hub which integrate community buildings, open space, retail uses and residential apartments.

The Strategy also proposes a network of smaller neighbourhood community centres; most of these are existing buildings which, over time will be upgraded and include West Pymble, West Lindfield, Roseville Chase, East Lindfield and St Ives Chase. Two new neighbourhood community centres are proposed in the northern part of Ku-ring-gai to address the shortage in this part of the LGA.

Some of Council's existing buildings are proposed to be closed as they will be replaced by the new buildings. An example is the Lindfield library and adjoining community halls; once the new hub facility is built and up and running these facilities will be closed. The map *Community and Cultural Infrastructure*

outlines the network of facilities, where new facilities are proposed, and where existing facilities are proposed to be closed and incorporated in the new Community Hub projects.

The following table includes a summary of the proposed facilities, both new and retained, for each catchment area within the LGA. Overall, the LGA will provide 91% of the recommended 2036m² provision of library and community centre floor space (recommended 2036 provision based on best practice benchmarks and State Library NSW Standards). Council owned facilities that are leased to community organisations and accommodate community services are in addition to this overall provision rate.

Proposed Community Facilities Network		
Catchment	Facility	Floor space (m ²)
Northern (Wahroonga, Pymble & Turramurra)	West Pymble Community Centre (retained)	250
	New Community centre (location tbc)	750
	New Community Centre (location tbc)	750
	New Library & Community Centre (Turramurra Community Hub)	3,400
subtotal		5,150
Eastern (St Ives)	Caley's Pavilion (retained)	194
	St Ives Community Centre (retained and upgraded)	570
	Family Day Care Resource Centre	117
	New Library & Community Centre (St Ives Community Hub)	1,500
subtotal		2,381
Southern (Lindfield, Killara and Roseville)	West Lindfield Community Centre (retained)	456
	East Roseville Community Centre (retained)	327
	East Lindfield Community Centre (retained)	391
	Blair Wark Community Centre (retained)	156
	New Library & Community Centre (Lindfield Community Hub)	2,400
subtotal		3,730
Sub-regional	Marian Street Theatre (retained and upgraded)	1,757
	Library & New Cultural Centre (Gordon Civic and Cultural Hub)	5,200
subtotal		6,957
Ku-ring-gai local government area total		18,218

Figure 2-15 Proposed Community Facilities Network

The Strategy also acknowledges the developing entertainment precinct on the St Ives Showground. In 2017 Council prepared a Ku-ring-gai Destination Management Plan to provide strategic direction for Council to plan for the sustainable management, development and marketing of tourism in Ku-ring-gai over the next four-years to 2020. Ku-ring-gai does not currently have a recognised tourism profile in Sydney region; the area has major nature-based and heritage assets that are under-utilised and under-capitalised, and not achieving their value to local residents and the economy. One of the key strategic priorities identified in the study is to continue to develop and re-position the St Ives Precinct as a contemporary and distinctive tourism destination in Sydney, building on the already successful 'Medieval Fair' which attracts visitors nationally and internationally.

A revised Precinct Master Plan is required that shows how festivals and events, tourism product and experiences, accommodation, and infrastructure can be balanced with the existing activities. Future master planning for the site should also ensure that new tourism initiatives for the site integrate with current community and recreational/sporting activities to develop an integrated multi-purpose destination.

Work is currently underway on a Creative Arts Facilities Strategy with a focus on Council buildings that are operated by Council and cater specifically for the creative arts which includes visual (photography, painting sculpture, printmaking etc.); performance (drama, music etc.); and the electronic arts (audio, visual, film etc.). Council currently maintains and operates three facilities specifically for the creative/visual/performing

arts and the strategy will consider the potential role for a new cultural hub in Gordon to supplement and support the existing facilities.

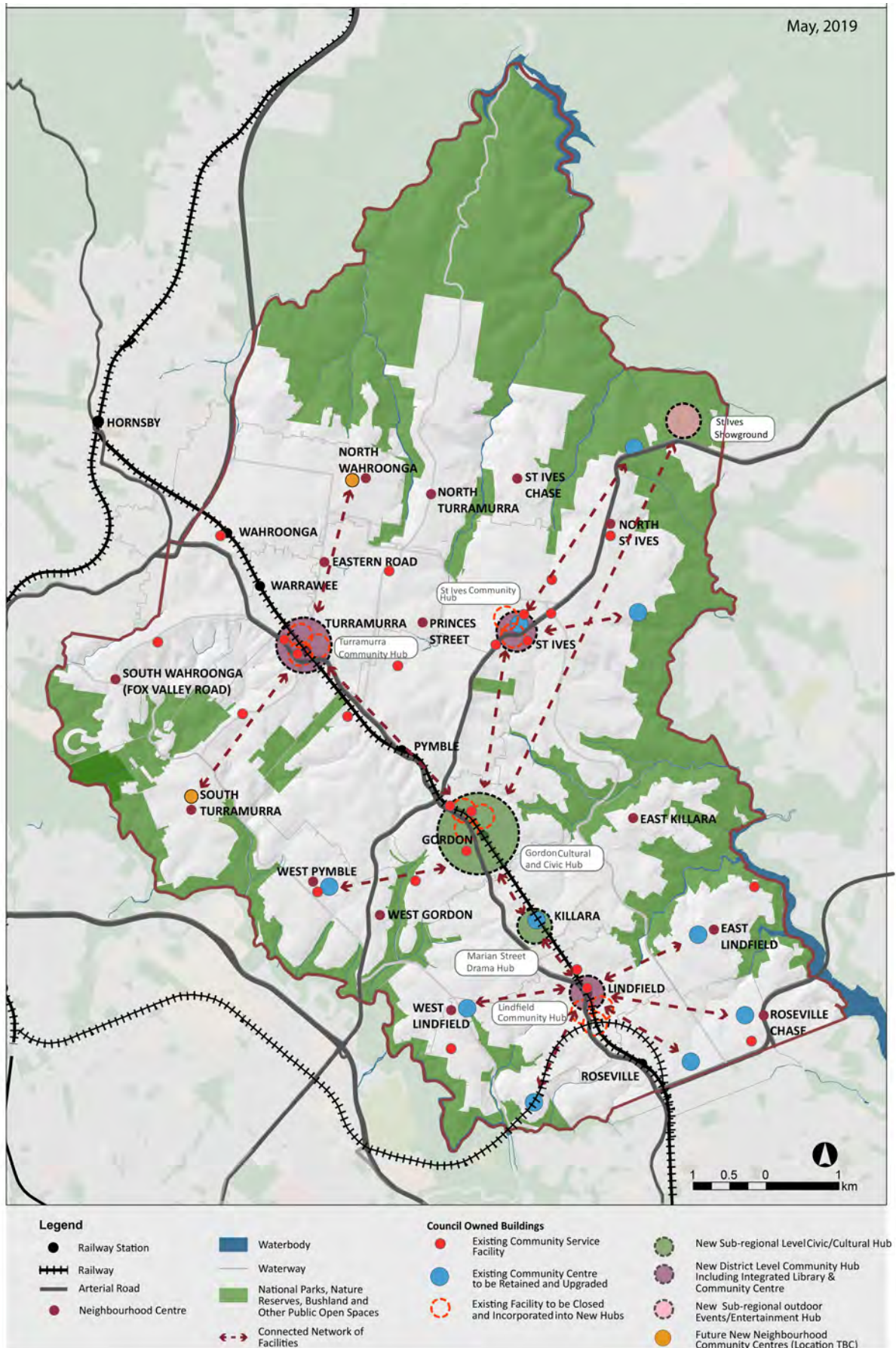
The study will further refine and understand the cultural and creative character of the LGA and the community's need for creative arts facilities across the LGA. The outcome will be a spatial framework setting out the proposed location of facilities across the LGA that will promote, encourage and nurture the creative, visual and performing arts into the future.

Future studies will need to develop additional strategies for:

- Council owned buildings that are currently leased to community organisations on an exclusive basis. Many of the existing buildings are ageing with high maintenance and/or replacement costs, and a number have been closed due to safety issues. Such a strategy would develop a financially sustainable model that would ensure identified social needs continue to be served. This strategy would likely propose some rationalisation of existing facilities including where possible incorporation into new facilities within the new community hubs.
- The management of the network of facilities including an approach to facility programming that ensures a range of services, activities and programs to meet a broad range of community needs. The administration and staffing arrangements for community hubs will also need to be considered as these will be managed as integrated facilities rather than as traditional separated libraries and community centres. The operational model may also involve the management of local and neighbourhood facilities as satellite facilities to their closest district or sub-regional community hub.

<p>Ku-ring-gai Council</p>	<p>Ku-ring-gai Local Planning Priority K14. Providing a range of cultural, community and leisure facilities to foster a healthy, creative, culturally rich, and socially connected Ku-ring-gai</p> <p>Actions</p> <ul style="list-style-type: none"> ➤ Implement council's adopted Community Facilities Strategy (<i>ongoing</i>) ➤ Complete the Creative Arts Facilities Strategy and commence implementation (<i>short term</i>) ➤ Continue to implement and develop Community Hub Projects at Turramurra, Lindfield, Gordon and St Ives as the basis for funding capex and opex of new facilities (<i>ongoing</i>) ➤ Progress the renewal and opening of Marian Street Theatre, Killara (<i>short-medium term</i>) ➤ Prepare Masterplan for Gordon Civic and Cultural Hub (<i>short term</i>) ➤ Prepare a revised Masterplan for St Ives Showground Precinct as a regional tourism and events destination (<i>short term</i>) ➤ Undertake a review of Council owned buildings that are currently leased to community organisations on an exclusive basis and develop a strategy for the management of these buildings (<i>ongoing</i>) ➤ Develop a management/operational model for the proposed network of community and cultural facilities (<i>short - medium term</i>)
<p>North District Plan</p>	<p>Planning Priority N3 Providing services and social infrastructure to meet people's changing needs</p> <p>Planning Priority N4 Fostering healthy, creative, culturally rich and socially connected communities</p>
<p>Greater Sydney Region Plan</p>	<p>Objective 6 Services and infrastructure meet communities changing needs</p> <p>Objective 7 Communities are healthy, resilient and socially connected</p> <p>Objective 9 Greater Sydney celebrates the arts and supports creative industries and innovation</p>

Map – Community and Cultural Infrastructure



Aboriginal Communities and Cultural Heritage

Ku-ring-gai Local Planning Priorities

K15. Strengthening recognition and support for Aboriginal communities and cultural heritage

K16. Protecting, conserving and managing Ku-ring-gai's Aboriginal heritage objects, items and significant places

Background

The Council of Ku-ring-gai acknowledges Aboriginal and Torres Strait Islander peoples as the traditional custodians of our land, Australia and this place we now call Ku-ring-gai.

The Ku-ring-gai Local Government Area (LGA) is estimated to have contained as many as 650 sites of Aboriginal heritage. With approximately 75 percent of the land within the LGA already developed, it is likely that a large number of Aboriginal sites have been destroyed. While 101 sites remain as recorded Aboriginal sites in the LGA, at least double that number is believed to remain. The majority of the remaining sites are located in bushland reserves; whilst others are within private land.

The Metropolitan Local Aboriginal Land Council (MLALC) (established under the *NSW Aboriginal Land Rights Act 1983*), is the legislated authority for representation of all Aboriginal people and the body responsible for protection and preservation of Local Aboriginal Culture and Heritage of the Sydney Metropolitan area. The MLALC owns 32ha of land within Ku-ring-gai. Council will continue to engage with the MLALC as both a land holder and a representational body for the Aboriginal people.

The following goals and strategies in the MLALC – *Strengthening the Aboriginal Nations 2016-2021* Community Land and Business Plan will guide Council's approach to working on Land Use Planning matters with the MLALC relating to the following areas;

- Aboriginal Healing & Well being
- Culture and Heritage
- Tourism and International Education
- Employment and Education
- Sustainability

Since 2006 Ku-ring-gai has also been a member of the Aboriginal Heritage Office (AHO), a joint initiative of member Councils (including Ku-ring-gai, Lane Cove, North Sydney, Willoughby, Strathfield and The Northern Beaches Council). The AHO's projects and activities are based on three main areas; education, council support and site management.

Council through works undertaken by the AHO continue to protect, record, monitor and restore (in collaboration with the Office of Environment and Heritage) Aboriginal sites within the LGA. Council also seeks to engage and empower the local community to respect and protect these sites through the AHO community volunteer site monitor program (this was a pilot study in North Sydney in 1997 and is still in operation today).

Protection of Aboriginal heritage is integrated within Council's policies, strategies, plans of management, site management plans and procedures. Including assessments under the Environmental Protection and Assessment Act 1979), internal training and support of staff and care program volunteers (e.g. bush care, street care and park care).

The National Parks and Wildlife Act 1974 (NPW Act) and Regulations, administered by the Office of Environment and Heritage (OEH), is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in New South Wales.

Under Councils Local Environmental Plan, Section 5.10 sets out the objectives and planning provisions to protect and conserve Aboriginal objects and Aboriginal places of heritage significance

Due to privacy and cultural sensitivity concerns Aboriginal places of heritage significance are not included on public maps. Whilst an appropriate level of Aboriginal heritage assessment is conducted by Council staff for all development applications and relevant council works, complying development certificates are often approved by private certifiers external to Council and may not currently require specific consideration of Aboriginal Heritage. This is presenting issues for the effective management and protection of Aboriginal cultural heritage in the Ku-ring-gai LGA.

Strategic response

Ku-ring-gai Council recognises that, by acknowledging our shared past, we are creating a framework for a future based on shared responsibility for our land, which encompasses all Australians. In doing so Council will:

- Continue to build upon the mapping of Aboriginal objects, sites and Aboriginal Place of Heritage Significance
- Investigate the creation of an Aboriginal Place of Heritage Significance Overlay within the LEP (whilst balancing the need for privacy to protect Aboriginal objects and sites).
- Work with State Government to address the protection and management of Aboriginal heritage within the Complying Development process.
- Actively seek opportunities for recognition and promotion of Aboriginal heritage, through the enhancement of sustainable nature-based and built form tourism in the local area (informed by the Ku-ring-gai Destination Management Plan, 2017-2020). This will include future improvements and management of the St Ives Showground Precinct as set out by the relevant Plan of Management and the masterplan time frames
- Seek to embrace opportunities to work with and support the Aboriginal community on contemporary cultural awareness and expression through initiatives such as culturally appropriate social infrastructure , protection of objects, sites and significant places through engaging with the MLALC and AHO in the implementation of the LSPS and other collaborative opportunities as identified. This includes consideration of the economic and social needs of MLALC as they relate to land use planning as articulated within the Metropolitan Local Aboriginal Land Council *Strengthening the Aboriginal Nations* 2016 – 2021 Community Land & Business Plan.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priorities
	K15. Strengthening recognition and support for Aboriginal communities and cultural heritage
	K16. Protecting, conserving and managing Ku-ring-gai's Aboriginal heritage objects, items and significant places
	Actions <ul style="list-style-type: none"> ➤ Investigate the opportunity with the MLALC for the development of an appropriate Reconciliation Action Plan. <i>(short-medium term)</i> ➤ Continue to engage with the Metropolitan Local Aboriginal Lands Council to better understand and support their economic aspirations as they relate to land use planning <i>(ongoing)</i>. ➤ Participate in the regional Aboriginal Heritage Office initiatives <i>(ongoing)</i>. ➤ Deliver Aboriginal cultural activities at the St Ives Precinct. <i>(short-medium term)</i> ➤ Implement the Destination Management Plan, incorporating visitation based on Aboriginal heritage. <i>(ongoing)</i> ➤ Local Aboriginal culture and history is recognised and protected through Council's policies, plans and strategies <i>(ongoing)</i>. ➤ Prepare in consultation with the Aboriginal organisations and relevant state agencies Aboriginal heritage controls and provisions into Council's development control plan and aligned policies. Further work is required to address protection of sites from complying development. <i>(short term)</i>
North District Plan	Planning Priority N4 Fostering healthy, creative, culturally rich and socially connected communities Planning Priority N17 Protecting and enhancing scenic and cultural landscapes
Greater Sydney Region Plan	Objective 8 Greater Sydney's communities are culturally rich with diverse neighbourhoods Objective 13 Environmental heritage is identified, conserved and enhanced Objective 28 Scenic and cultural landscapes are protected

Open Space, Recreation and Sport

Ku-ring-gai Local Planning Priorities

K17. Providing a broad range of open space, sporting and leisure facilities to meet the communities diverse and changing needs

K18. Ensuring recreational activities in natural areas are conducted in harmony with the local environment and within ecological limits.

K19. Providing well maintained, connected, accessible and highly valued trail networks and recreational infrastructure where locals and visitors can enjoy and connect with nature

K20. Developing and managing a network of sporting assets that best meets the needs of a growing and changing community

Background

The Ku-ring-gai local government area has approximately 300 hectares of developed open space containing a wide spectrum of sport and recreation facilities including sportsgrounds at 45 locations, a fitness and aquatic centre, two public golf courses, 30 sealed netball courts, 69 tennis courts, 5 bowling clubs, 1 croquet green, and over 3km of bitumen recreational cycle ways.

Alongside the areas of developed open space Ku-ring-gai has approximately 1,100 hectares of natural areas or bushland including 15 iconic walking tracks and many other tracks and trails offering a multitude of recreational opportunities. Some of the activities conducted on bushland tracks and trails and within natural areas in Ku-ring-gai include: walking, running and jogging; rock climbing, bouldering and abseiling; mountain biking; and orienteering and rogaining to name a few.

The adjoining waterways also offer opportunities for a range of water sports including kayaking, fishing, swimming and boating. Whilst all boat ramps and marina areas occur either in private ownership or National Parks, these areas nonetheless provide an important context and add significant value to the range of recreational experiences offered within the LGA.

Ku-ring-gai also has very high participation rates in passive recreation such as walking, running, dog walking, cycling and unstructured or informal sport within open space facilities such as parks.

The pressure on Council's parks and sport and recreation facilities are high, and there are insufficient facilities to meet current and anticipated future demands. Further as the age profile of the community changes, different preferences for recreation and leisure are emerging. An example is the declining participation rates in the sports of golf and bowling. Across Ku-ring-gai two bowling clubs have closed in the last few years one in Roseville Chase and the other in Gordon; in addition one club in East Lindfield has been partly converted for FOOTBALL. Membership of the Gordon Golf Club has declined significantly; while mountain biking and road cycling for recreation has seen significant increases in participation.

The natural areas of Ku-ring-gai are ecologically sensitive and vulnerable to over-exploitation. Biotic and abiotic factors, such as topography, erosional landscapes and prevalence of rare and threatened species and ecological communities means large areas are not suited to some recreational pursuits and there is limited recreational infrastructure that can be provided to ensure sustainability within ecological constraints.

To meet growing demands for recreation opportunities in bushland areas Council has recently commenced preparation of a *Recreation in Natural Areas Strategy*.

Strategic response

The *Ku-ring-gai Open Space Acquisition Strategy 2006*, *Recreation Needs Analysis Study, 2001*, and *Sport in Ku-ring-gai Strategy, 2006* have been the key documents informing the Council's open space and recreation needs and priorities over the last decade or more. To add to these studies Council has recently commenced

a *Recreation in Natural Areas Strategy* to meet growing demands for recreation opportunities in bushland areas.

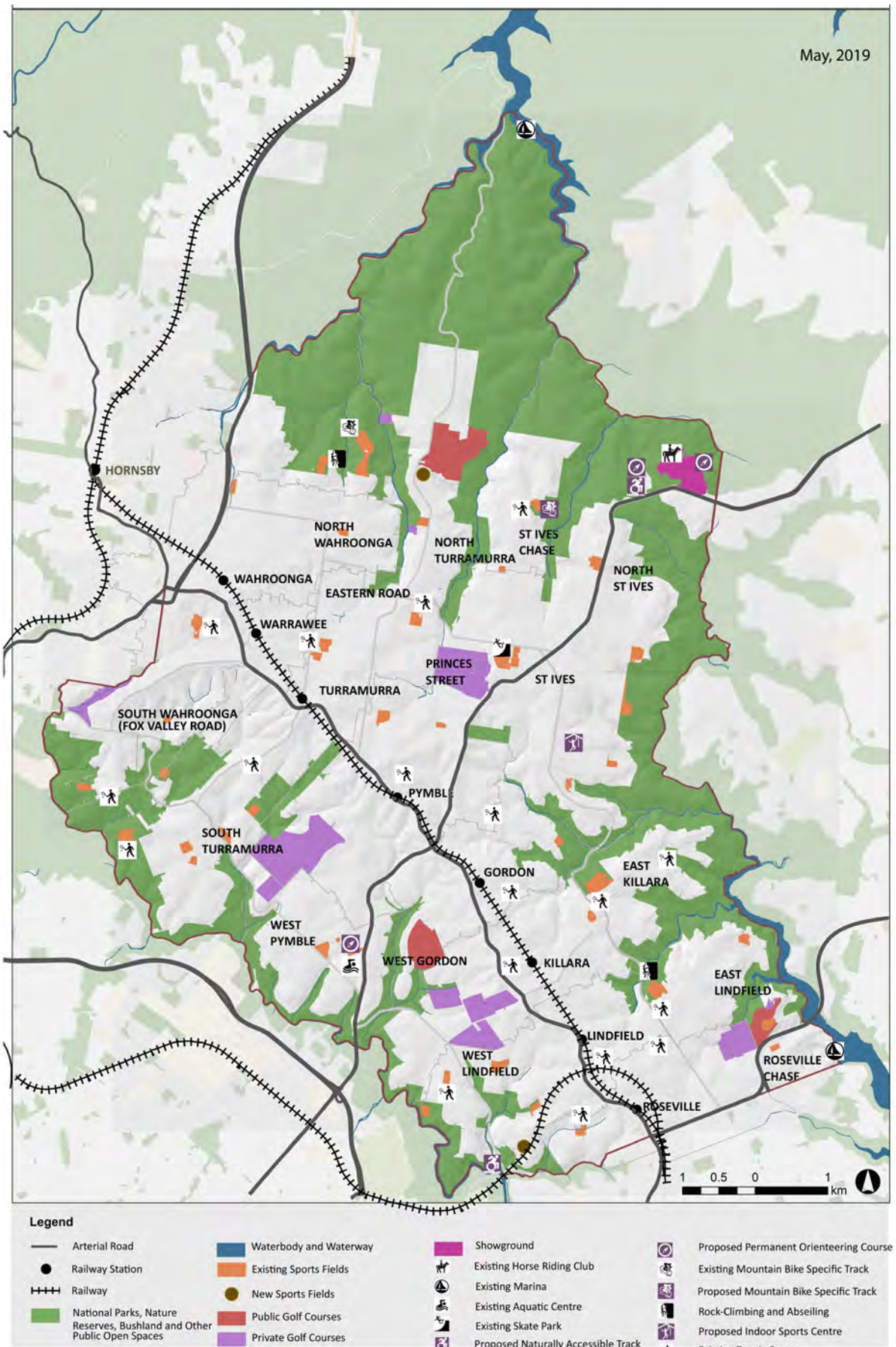
Since 2006 Ku-ring-gai and the broader Sydney metropolitan area has undergone rapid change and it is now timely to assess these changes to inform decision making about future open space, sport and recreation facility provision and development. Moving forward Council intends to plan for open space, sport and recreation in an integrated manner. This will ensure balanced consideration of activity needs whether active, passive, structured or unstructured.

In the short term Council will prepare an Open Space, Sports and Recreation Needs Study to better understand the changing needs of residents. As noted in this LSPS there has been significant demographic change in the resident population and research is required to understand recreation needs, existing gaps in provision and future demand. The study will provide Council with an evidence base and strategic framework for effective recreation, open space, infrastructure, and financial planning for the future.

The Open Space, Sports and Recreation Needs Study will integrate with Council's draft *Recreation in Natural Areas Strategy* currently under preparation; draft *Playground Strategy* currently under preparation; with green grid and open space acquisition planning; and with the *NSROC Sportsground Strategy 2017*.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priority <i>K17. Providing a broad range of open space, sporting and leisure facilities to meet the communities diverse and changing needs.</i>
	<i>K18. Ensuring recreational activities in natural areas are conducted in harmony with the local environment and within ecological limits</i>
	<i>K19. Providing well maintained, connected, accessible and highly valued trail networks and recreational infrastructure where locals and visitors and enjoy and connect with nature</i>
	<i>K20. Developing and managing a network of sporting assets that best meets the needs of a growing and changing community</i>
	Actions <ul style="list-style-type: none"> ➤ Complete and commence implementation of the Recreation in Natural Areas Strategy (<i>short term</i>) ➤ Undertake an Open Space, Sport & Recreation Needs Study (<i>short term</i>) ➤ Continue to implement a program of improvements to existing recreation, sporting and leisure facilities (<i>ongoing</i>) ➤ Continue to work closely with sporting organisations and clubs, user groups and residents to develop and manage Council's sporting assets (<i>ongoing</i>) ➤ Negotiate a Heads of Agreement with the Department of Education for the construction and joint usage of an indoor sports facility at St Ives High School (<i>short term</i>)
North District Plan	Planning Priority N1 Planning for a city supported by infrastructure Planning Priority N4 Fostering healthy, creative, culturally rich and socially connected communities
Greater Sydney Region Plan	Objective 1 Infrastructure supports the three cities Objective 8 Greater Sydney's communities are culturally rich with diverse neighbourhoods

Map – Open Space, Recreation and Sport



3 - PRODUCTIVITY

30 Minute City

Ku-ring-gai Local Planning Priorities

K21. Prioritising new development and housing in locations that enable 30minute access to key strategic centres

K22. Providing improved and expanded district and regional connections through a range of integrated transport and infrastructure to enable effective movement to, from and within Ku-ring-gai

Background

Ku-ring-gai is characterised by a number of Local Centres and villages along the North Shore railway line, supplemented by neighbourhood centres. It is therefore important for land use planning to allow for a mix of land uses at attractor nodes to reduce the amount of trips people need to undertake in order to access public transport and local services/amenities. The location of a variety of land uses (residential, retail, employment, open space, community facilities etc.) within walking or cycling distance encourages public transport usage, and active transport modes and can help to minimise private car use. In the context of the integration of land use and transport, the Ku-ring-gai Integrated Transport Strategy acknowledges that:

- in order to provide convenient transport choices that are an alternate to private vehicle use, increased dwelling and employment densities should be focused on public transport nodes;
- focusing dwelling and employment development within good access to public transport supports existing public transport infrastructure with increased patronage opportunities; and
- increased development in close proximity to public transport nodes can also encourage further development – e.g. retail and service that can increase activity and vitality of areas.

The Ku-ring-gai LGA is notable in that it does not contain a Strategic (or Metropolitan) Centre, so residents would need to leave the LGA to access their nearest strategic centre. Strategic centres to the south and north are relatively well serviced from Ku-ring-gai by rail, but by comparison strategic centres east and west are poorly serviced from Ku-ring-gai by public transport.

Convenient access to all-day frequent public transport in Ku-ring-gai is limited to areas around rail stations, and some road corridors where bus services are frequent.

Access to all-day frequent transport is critical in enabling 30 minute access to key strategic centres located in surrounding LGAs not only for journeys to work, but for other purpose trips such as shopping, recreation/leisure and education.

Some local and neighbourhood centres in Ku-ring-gai are more advantaged than others in that they:

- provide access to a greater number of jobs, strategic centres and other facilities by virtue of their spatial location within the LGA
- the level of public transport available
- the number and proximity of key strategic centres to them.

This includes the neighbourhood centres on or adjacent to the arterial road network such as Roseville Chase, North St Ives and West Gordon. (Refer to maps: *Mobility –North ST Ives*; *Mobility West Gordon*; *Mobility St Ives Chase*)

Movement to and from Ku-ring-gai

The North District Plan envisages the long term jobs capacity of Macquarie Park to be the next largest centre after City of Sydney/North Sydney. Macquarie Park is well serviced by public transport for trips to work with origins to the north (heavy rail), north-west (NW Metro), and south/ south-east (heavy rail/NW

metro). However, Journey to work (JTW) data indicates that approximately 1/3 of journey to work trips originate north-east and south-west of Macquarie Park. Of the trips from Ku-ring-gai/Northern Beaches to Macquarie Park, between 77% and 87% are by car, and between 8% and 11% are by train/bus. This is due to public transport links being substantially weaker and less reliable, due to bus services which are impacted by peak hour traffic congestion on key arterial and regional road corridors in Ku-ring-gai.

Traffic volumes on Ryde Road on the northern approach to Macquarie Park have been steadily increasing (including proportion of heavy vehicles) and now exceed 30 000 vehicles in each direction. The majority of passenger vehicles in peak periods are single-occupant vehicles. During mornings and afternoon/evenings, significant congestion results on the corridor as the capacity is exceeded. It is not unusual to experience trip times greater than 30 minutes to travel the 4.5km on the A3 corridor (up to as late as 10am) between Pacific Highway and Waterloo Road, which impacts on both productivity and liveability. Clearly there is a need to review the allocation of road space on the A3 corridor in the North District, to make provision for more efficient modes of transport so that the future productivity and liveability of the Macquarie Park strategic centre and the North District can be maintained and improved.

Movement within Ku-ring-gai

According to 2016 ABS Census data, of the 30,173 people who work in Ku-ring-gai Council area, 13,394 or 44.4% also live in the area. This indicates a high degree of mobility within the LGA. Apart from along the rail corridor and some road corridors that have frequent bus services, intra-LGA travel by public transport is not convenient or frequent enough to encourage its use.

On average over the Sydney Trains network, the proportion of rail passengers who drive a car to the rail station is typically about 10%. However, at five Ku-ring-gai LGA rail stations the overall proportion of car drivers surveyed was 35% which is significantly higher than the average for the Sydney Trains network. This indicates a high degree of dependence on car travel for access to the rail station. Demand for dedicated commuter parking around railway stations in the LGA exceeds the supply. This results in commuters parking on-street around railway stations, sometimes as far as 800m away. For example, in Gordon, there are approximately 700 dedicated commuter parking spaces, but the demand is for nearly double that number.

Strategic response

A review of the Ku-ring-gai Integrated Transport Strategy is necessary so that there is alignment with *Future Transport 2056* and the *North District Plan*. To help inform the Housing local planning priority, the review would include analysis of travel times by public transport from Ku-ring-gai suburbs to strategic centres in the Eastern Economic Corridor, considering the transport improvements identified in *Future Transport 2056*. As part of the review, the Ku-ring-gai Integrated Transport Strategy should also develop mode share/mode split targets for Local Centres, with priority for walking, cycling and public transport, to increase proportion of trips to Local Centres by modes other than private car.

Implementation of public transport improvements identified in *Future Transport 2056* (both committed, and those initiatives for investigation), particularly serving the east-west direction and cross-regional links, could expand the locations in Ku-ring-gai that could provide convenient access to all-day frequent public transport, and could therefore improve local and neighbourhood centres access to a greater number of jobs and strategic centres. From this, improving local connections to these local and neighbourhood centres is also critical in maximising the opportunities available within 30 minutes by public transport.

Movement to and from Ku-ring-gai

The Road Network Plan for the Lane Cove Road Corridor (RMS, 2018) acknowledges that one of the key issues /highest priorities is that

“Traffic performance may worsen and poor performance may extend beyond existing peak periods as traffic demand increases with the growth of Macquarie Park and other centres surrounding the corridor.

Investigations and investments in alternative travel options (public and active transport) and parking provision are required to change travel behaviour. Without this, heavy reliance on private vehicles will worsen traffic performance along this corridor.”

Following this, the opportunities identified in the Road Network Plan include developing an integrated transport strategy, rather than infrastructure solutions, to enhance the efficiency of the corridor. By strengthening the existing east-west transport links (Dee Why to Chatswood and Mona Vale to Macquarie Park), followed by true Rapid Bus Transit, these strategies would form part of an integrated solution to improve the efficiency of the corridor. This would also align with the 4 corridor vision for Northern Beaches Council (to transform from one strategic bus corridor (B-Line) to 4 public transport corridors in and out of the Northern Beaches LGA, particularly to areas to the west).

In order to complete the access upgrades of stations in Ku-ring-gai, Council will continue to advocate for the upgrade to Killara railway station

Movement within Ku-ring-gai

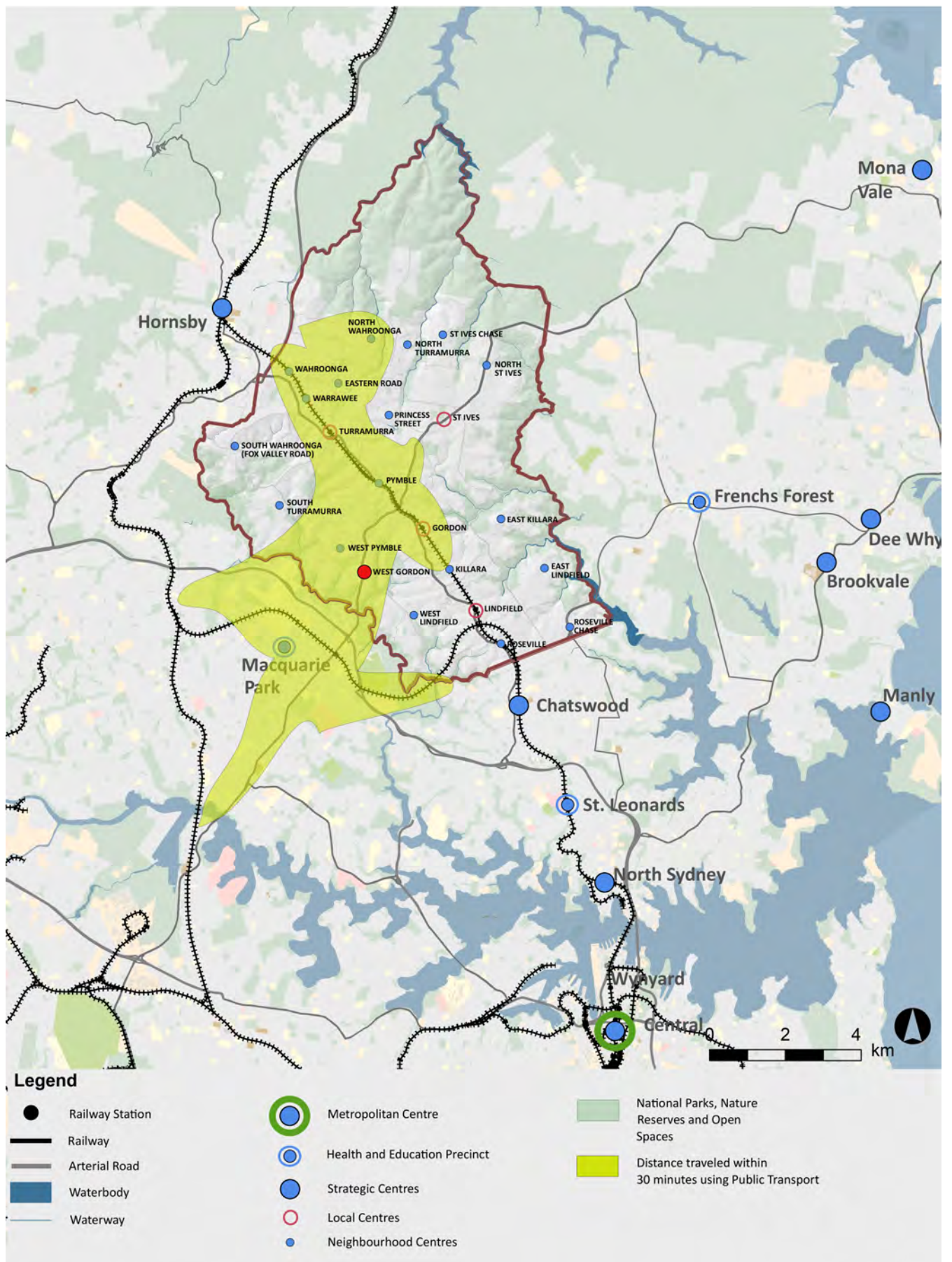
Key bus routes and corridors have been identified for service and infrastructure improvement, to encourage public transport use within the LGA. This would create more of a network of local routes with better connections to Local Centres and neighbourhood centres. (Refer to map: *Public Transport*)

There is also justification for the implementation of an on-demand bus service in the LGA, as an in-fill service to areas not well serviced by existing bus services. A trial service currently operating in the Sutherland Shire has similar characteristics to a potential service in the Ku-ring-gai LGA, in that:

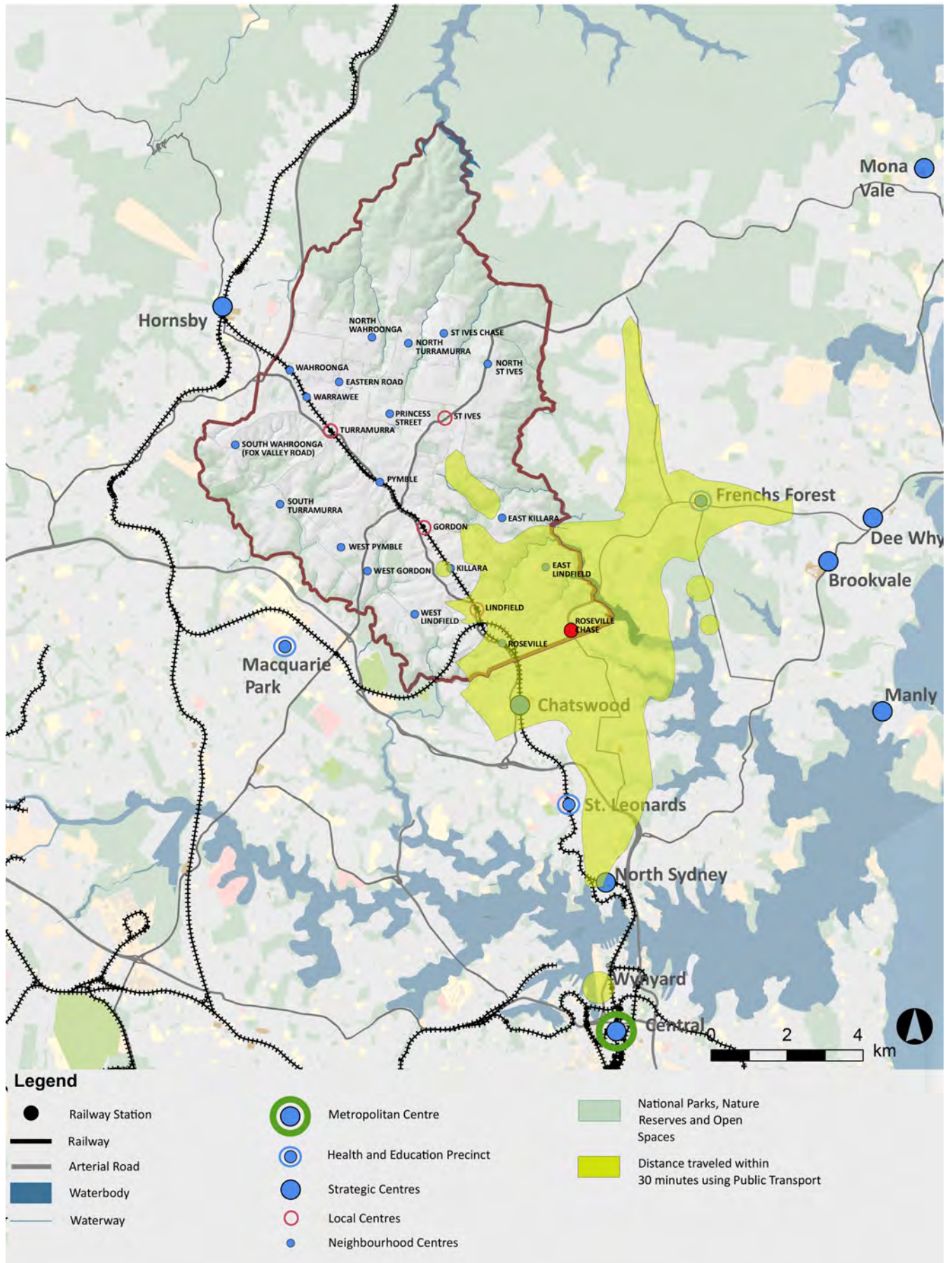
- there is an existing rail corridor and stations along a spine;
- a number of Local Centres are located around railway stations, with retail, medical and other services;
- the area is predominantly characterised by low density residential, with more dense development located around rail stations and along the rail corridor;
- there is a major hospital precinct located outside the Local Centres and away from rail station access;
- there are a number of educational, recreational and aged care facilities also outside the Local Centres and away from rail station access;
- the number of dwellings without access to a frequent all-day public transport is high.

Ku-ring-gai Council	<p>Ku-ring-gai Local Planning Priorities</p> <p><i>K21. Prioritising new development and housing in locations that enable 30minute access to key strategic centres</i></p>
	<p><i>K22. Providing improved and expanded district and regional connections through a range of integrated transport and infrastructure to enable effective movement to, from and within Ku-ring-gai</i></p>
	<p>Actions</p> <ul style="list-style-type: none"> ➤ Review Integrated Transport Strategy to align with <i>Future Transport 2056</i>, and include: <ul style="list-style-type: none"> - analysis of travel times by public transport from Ku-ring-gai suburbs to strategic centres in the Eastern Economic Corridor considering the transport improvements identified in <i>Future Transport 2056</i>; and - development of mode share targets for the Local Centres (<i>short term</i>) ➤ Advocate to TfNSW to increase priority and accelerate the delivery of infrastructure improvements identified in <i>Future Transport 2056</i> that connects Ku-ring-gai internally and with nearby centres, including: <ul style="list-style-type: none"> - improvements to bus connections from Mona Vale to Macquarie Park, and Dee Why to Chatswood (followed by Bus Rapid Transit); - implementation of access upgrade to Killara railway station; - improvements to access to public transport, comprising of (but not limited to) more frequent and direct bus services to stations, improvements to key local bus corridors, introduction of on-demand bus services and additional commuter parking (where appropriate) (<i>short term - ongoing</i>)
North District Plan	<p>Planning Priority N12</p> <p>Delivering integrated land use and transport planning and a 30minute city</p>
Greater Sydney Region Plan	<p>Objective 14</p> <p>A Metropolis of Three Cities – integrated land use and transport creates walkable and 30minute cities</p>

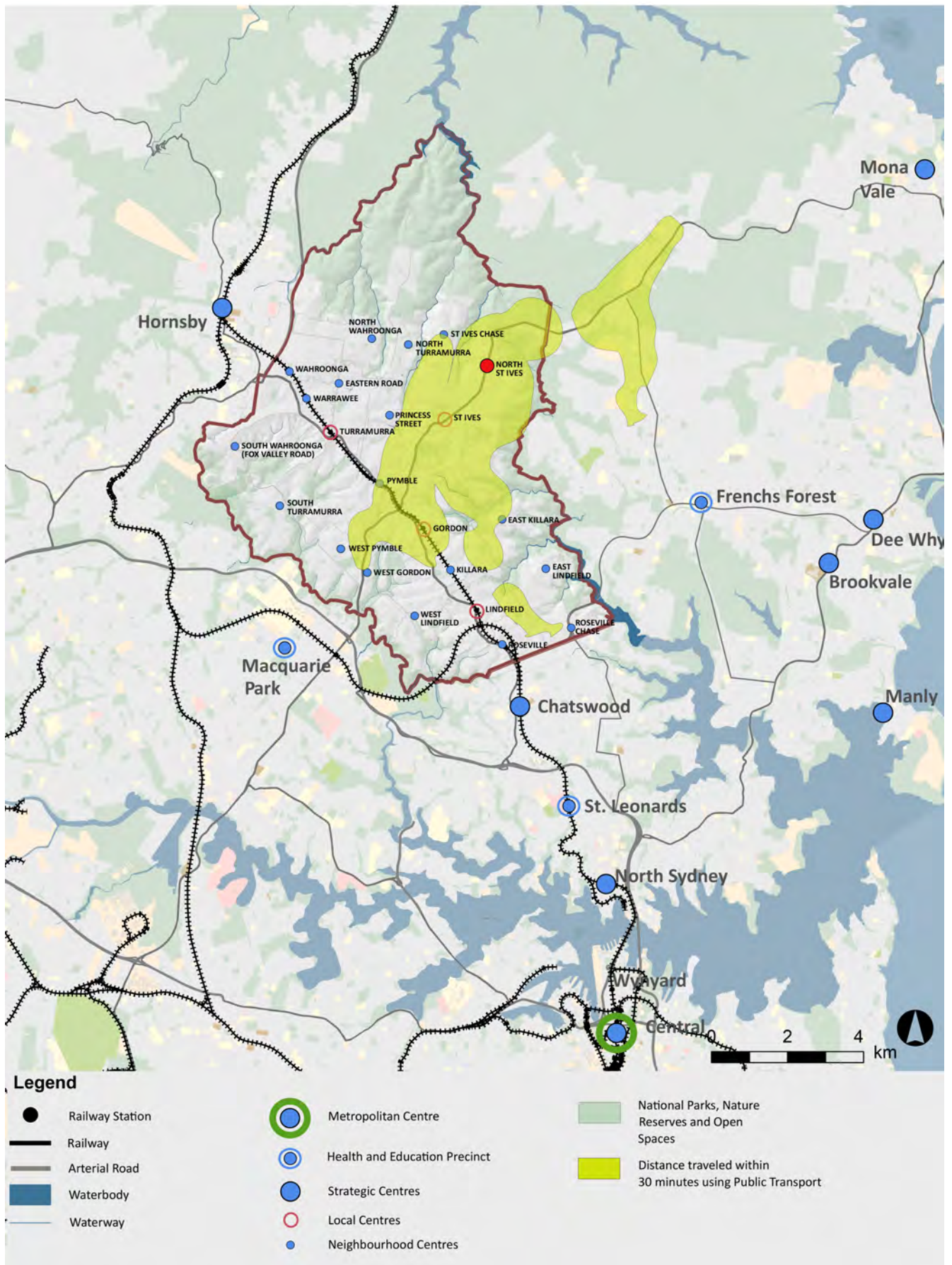
Mobility Map – West Gordon



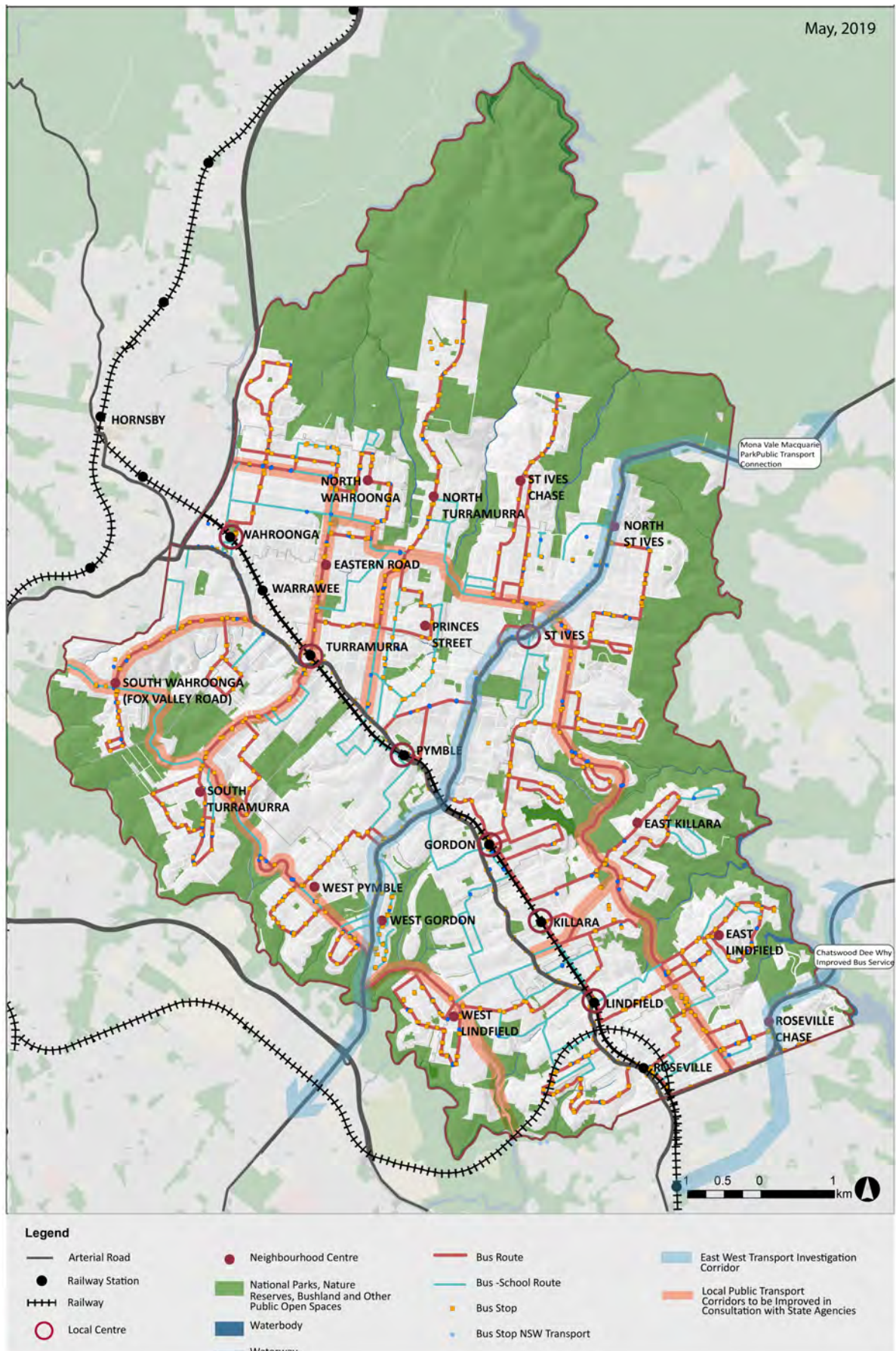
Mobility Map – Roseville Chase



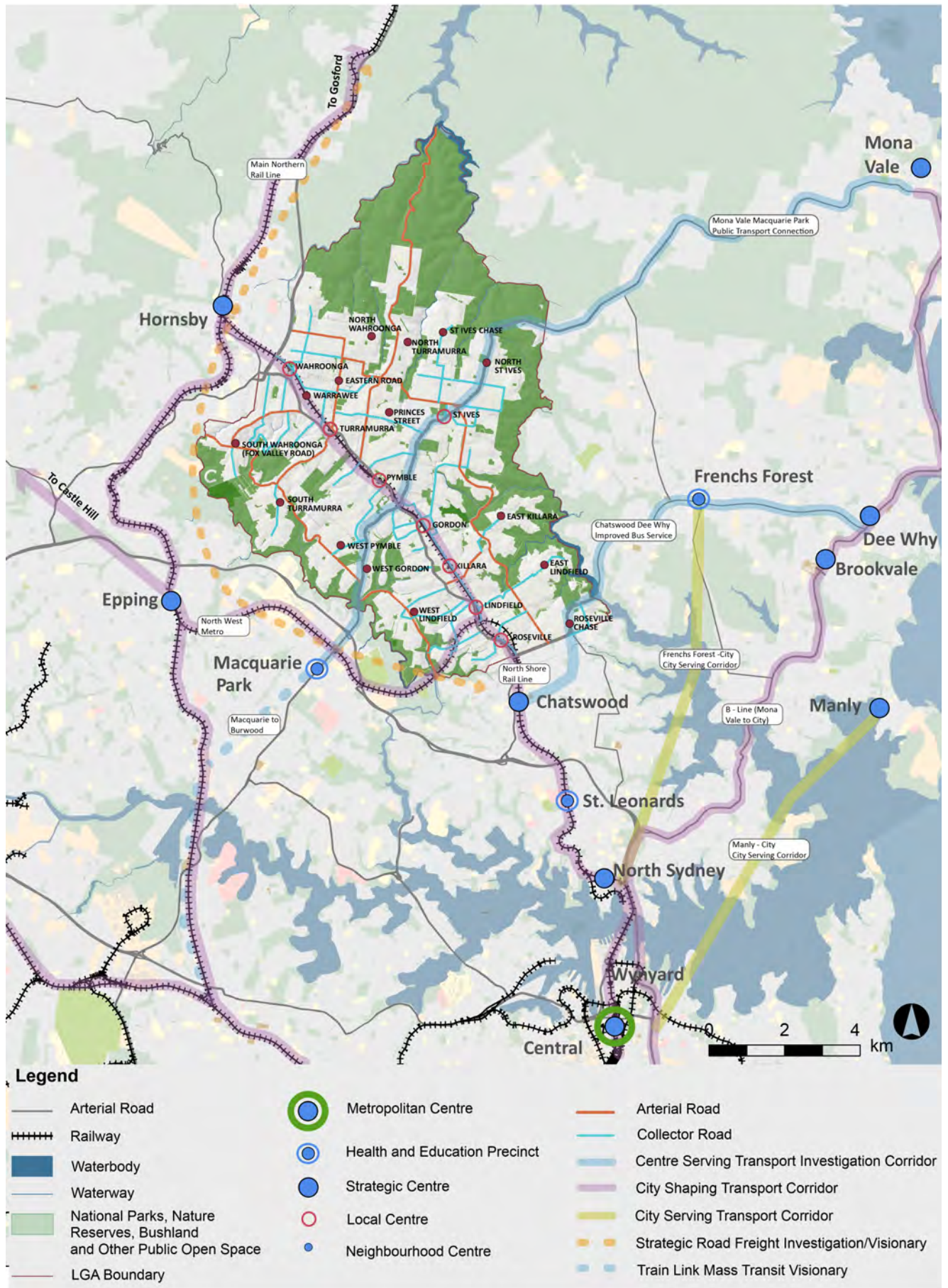
Mobility Map – St Ives North



Map – Public Transport



Map - Strategic Road and Rail Network



Active Transport – Walking and Cycling Networks

Ku-ring-gai Local Planning Priority

K23. Providing safe and convenient walking and cycling networks within Ku-ring-gai

Background

The Ku-ring-gai Integrated Transport Strategy recognises that communities and Local Centres with walking and cycling at the forefront of design provide attractive, liveable areas with high levels of street activity, improved safety and a high quality of environment. Walkable and cycleable environments facilitate greater public transport use and also contribute to healthy communities through the encouragement of physical activity. One of the Strategy's objectives was to increase cycling mode share of bicycle trips to 5% by 2016.

Walking

Walking is a fundamental and direct means of access to most places and to the goods, services and information available at those places. Those creating public and private space or facilities must give priority to 'walk in' access which is attractive, safe, convenient and accessible for everyone. All responsible agencies should respect the pedestrians' priority right-of-way on footpaths and recognise the importance of constructing and maintaining them for transport, health, safety, leisure and social purposes.

Council has undertaken a review of the current pedestrian needs in the Ku-ring-gai LGA with the aim of providing a consistent standard of facilities for pedestrians. The review provided a list of prioritised pedestrian infrastructure improvements for safer, more attractive transport choices for residents and visitors, to increase pedestrian activity and to improve the amenity for all local residents and visitors to the LGA. The specific objectives of the review were to:

- Increase the use of the pedestrian network for short trips (1.5- 2 km);
- Reduce the number of missing links within the pedestrian network;
- Reduce the number of pedestrian accidents;
- Improve pedestrian connectivity with other transport modes, primarily train, bus, bicycle and car;
- Provide pedestrian facilities which cater for the needs of all pedestrians, including people with disabilities, commuters, children, seniors and recreational walkers; and
- Complement existing and planned pedestrian and bicycle facilities.

This study focused on reviewing the existing and proposed pedestrian network with the aim of extending and improving the existing network of pedestrian facilities. Recommendations from the review are included in a Draft Pedestrian Access and Mobility Plan (PAMP) to be completed in 2019/2020.

Cycling

In 2016, 0.6% of Ku-ring-gai Council area's employed population travelled to work by bicycle (at any stage of their journey), compared to 0.7% in Greater Sydney. This is despite modest provision of cycling facilities in the LGA. While Ku-ring-gai had a lower proportion of people who cycled to work, this varied across the LGA. For example, proportions ranged from a low of 0.1% in St Ives to a high of 1.7% in South Turramurra.

The Ku-ring-gai Bike Plan was adopted by Council in 2012. Objectives of the Bike Plan include reducing the number of missing links and severance within the existing bicycle network, and improving the connectivity of the cycle network with other transport modes, primarily bus, train and walking. Since adoption of the bike plan, modest progress has been made in implementing a south-to-north route (roughly parallel to Pacific Highway), from Roseville to Wahroonga. Planning is also underway for local cycling links to some of Council's new major project sites in Lindfield and Turramurra.

Community awareness and expectations in terms of the quality and safety of cycling facilities for all ages and riding abilities have increased since the adoption of the bike plan, with the community desire now for

separated cycling facilities, which come at a higher cost than the facilities anticipated in the Bike Plan. Except on quiet, low traffic local roads, on-road/mixed traffic cycleways are not considered adequate for cycling. Providing separated cycling facilities through residential areas and Local Centres often involves impacts to on-street parking, which can present challenges in their development.

Strategic response

As foreshadowed in the local planning priorities for a 30 minute city, the review of the Ku-ring-gai Integrated Transport Strategy would incorporate the development of mode share/mode split targets for Local Centres, with priority for walking, cycling and public transport. This would provide the strategic justification to increase proportion of trips to local centres by modes other than private car, including active transport.

Walking

The *North District Plan* discusses the principle that direct, safe and accessible routes to local destinations and services should be prioritised within a 10 minute walk of centres. To help achieve this, opportunities identified in the PAMP would need to be incorporated in the review of the Public Domain Plans for the Local Centres.

Cycling

The Greater Sydney Principal Bicycle Network (as part of *Future Transport 2056*) foreshadows a network of major bike corridors linking strategic centres across Greater Sydney. In addition to this, the individual components of the Principal Bicycle Network have an important role in supporting shorter distance city-serving and centre-serving journeys.

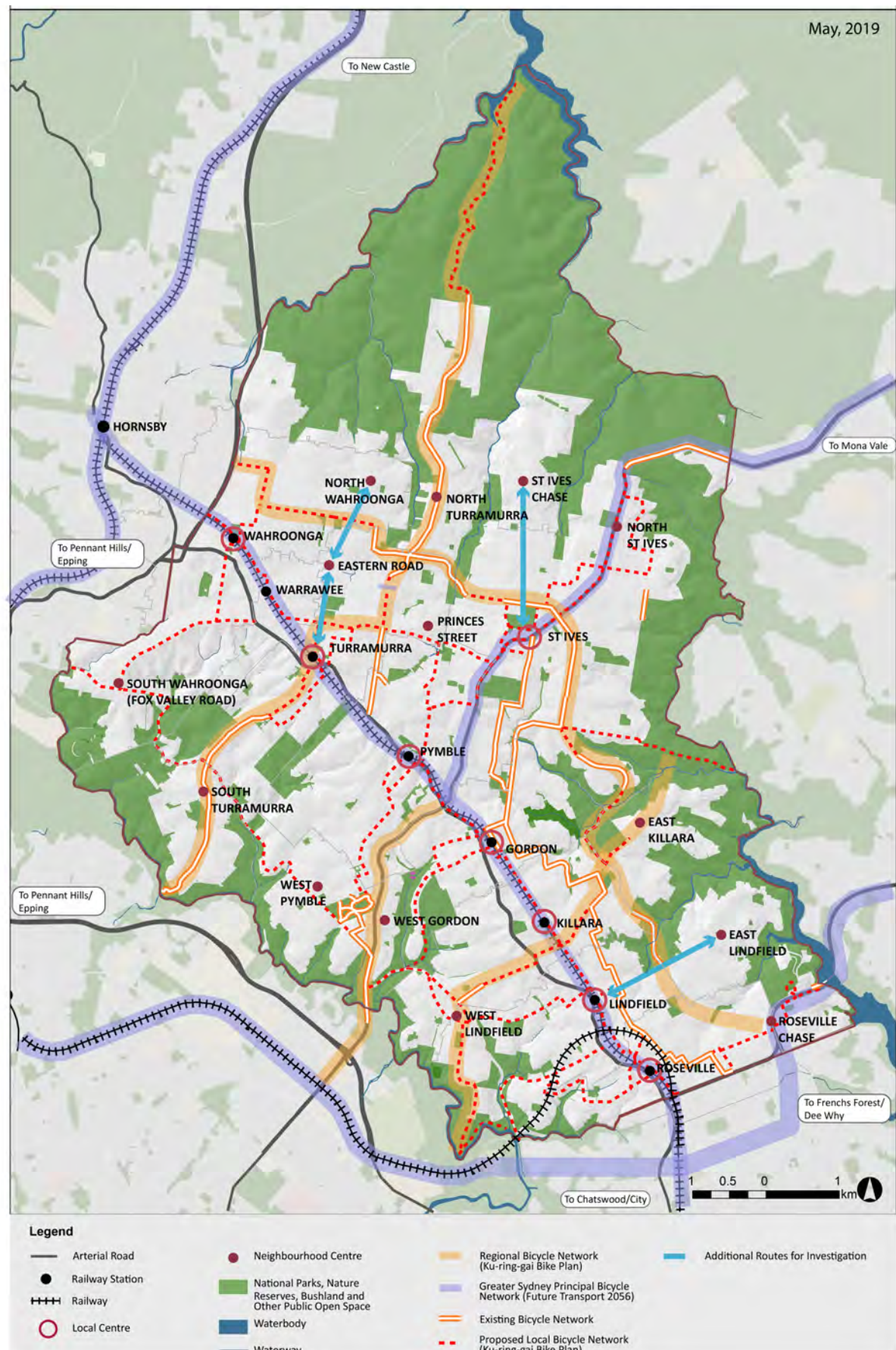
The Green Grid provides preliminary prioritisation of opportunities in terms of their strategic potential as catalysts for the establishment of a new interconnected high performance green infrastructure network which will support healthy urban growth. The Green Grid is discussed in more detail within Section 4 – Sustainability – Green Grid, Planning Priorities K32, K33 and K34.

The Ku-ring-gai Bike Plan was developed to connect local activity generators and attractors, such as transport nodes, schools, shops and recreation facilities, as well as providing regional connectivity.

In order to better align with State Government plans, a review/update of the Bike Plan will be undertaken in conjunction with the Green Grid Strategy (see Planning Priorities K32, K33 and K34) to integrate with new opportunities in Local Centres, local and Sydney Green Grid connections and regional opportunities and connections as addressed within the Principal Bicycle Network and other active transport provisions in *Future Transport 2056*. In addition to this, better integration of cycling in the Local Centres needs to be achieved, therefore cycling facilities need to be incorporated in the review of the Public Domain Plans for the Local Centres.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priority <i>K23. Providing safe and convenient walking and cycling networks within Ku-ring-gai</i>
	Actions <ul style="list-style-type: none"> ➤ Review/update Bike Plan, to align with Principal Bicycle Network and other active transport provisions in <i>Future Transport 2056</i>, as well as new opportunities identified in the Green Grid Strategy and in the Local Centres (<i>short-medium term</i>) ➤ Incorporate cycling facilities and pedestrian facilities in the review of the Public Domain Plans for the Local Centres (<i>short-medium term</i>) ➤ Update mode share for cycling in the review of the Ku-ring-gai Integrated Transport Strategy, to include mode share/mode split targets for Local Centres (<i>short-medium term</i>) ➤ Complete Pedestrian Access and Mobility Plan (PAMP) (<i>short term</i>)
North District Plan	Planning Priority N12 Delivering integrated land use and transport planning and a 30minute city
Greater Sydney Region Plan	Objective 14 A Metropolis of Three Cities – integrated land use and transport creates walkable and 30minute cities

Map – Active Transport – Cycle Routes



Local Economy and Employment

Tourism

Ku-ring-gai Local Planning Priority

K24. Diversifying Ku-ring-gai's local economy through the expansion of tourism and the local visitor economy

Background

Ku-ring-gai does not currently have a recognised tourism profile in Sydney for domestic, international, overnight or day trip visitors. Ku-ring-gai currently receives only 344,000 visitors per annum¹³, which is approximately 1% of the 33.8 million visitors to Sydney.

Key findings from the community engagement undertaken in 2017 for the review of the *Community Strategic Plan* identified that Ku-ring-gai's status as a nature destination could be improved; and tourist and visitation offerings based on aboriginal heritage, heritage/historical, St Ives Showground, and the Marian Street Theatre could be expanded.

Council adopted the *Ku-ring-gai Destination Management Plan 2017-2020* in July 2017 to plan for the sustainable management, development and marketing of tourism in Ku-ring-gai. The Plan focuses on the potential of the St Ives Showground Precinct (consisting of three adjoining sites being the Wildflower Garden, the Showground and the former plant nursery) as a tourism destination and the main opportunity to grow Ku-ring-gai's tourism and local visitor economy, as shown on the map – *Local Economy and Employment*.

Strategic response

Ku-ring-gai has significant opportunities to capitalise on its strategic location in Sydney, and to further develop and enhance its tourism and local visitor economy.

The key tourism opportunities within Ku-ring-gai include:

- St Ives Showground Precinct
 - Festivals and events , such as the Medieval Faire
 - Nature based
 - Aboriginal culture and heritage
- Architectural heritage and culture such as Rose Seidler House
- Recreational and leisure activities
- Hospitality and retail

Challenges to further diversifying the local economy of Ku-ring-gai through the expansion of tourism and the local visitor economy include:

- limited visitor accommodation.
- the need to attract quality and complementary tourism and hospitality operations.
- ensuring that the natural environment and quality of life for the local community is protected and maintained.

The *Destination Management Plan 2017-2020* provides a framework for strengthening the tourism and the local visitor economy in Ku-ring-gai by Council investing in strategic planning and development of the St Ives Precinct as an important centre for events, nature based and Aboriginal tourism in Sydney. The LSPS

¹³ Estimate 2016 – Tourism Research Australia, YE June 216, STA2 areas: Wahroonga/Warrawee, Turramurra, St Ives, Pymble, Lindfield/Roseville, Gordon/Killara

will implement the land use based actions identified in the Plan in order to expand the tourism and visitor economy in Ku-ring-gai, including:

- Supporting the development of new accommodation infrastructure that is in character with the area such as small scale boutique hotels or bed and breakfast in large old houses
- Ensuring opportunities for hospitality and retail operations are considered as part of strategic planning for Hub projects
- Progressing the renewal and opening of Marian Street Theatre
- Master planning for the St Ives Showground Precinct as a regional tourism and events destination.

Council is also developing a Natural Areas Recreation Strategy – relating to unstructured recreation activities such as walking, jogging, rock climbing, abseiling, mountain biking and orienteering within council's bushland, which will help to further develop Ku-ring-gai's recreation and leisure experiences, supporting tourism and the local visitor economy. The Natural Areas Recreation Strategy is discussed further under Planning Priorities K17, K18 and K19.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priority <i>K24. Diversifying Ku-ring-gai's local economy through the expansion of tourism and visitor economy</i>
	Actions ➤ Implement land use based actions from the adopted <i>Ku-ring-gai Destination Management Plan 2017-2020</i> including: <ul style="list-style-type: none"> - Support sustainable development of new accommodation infrastructure to stimulate overnight visitor stays by reviewing development control and land use policies to identify suitable locations and encourage the establishment of these facilities (<i>medium term</i>) - Ensure opportunities for establishment of high quality hospitality and retail operations that are attractive to visitors are considered as part of strategic planning for Lindfield, Gordon and Turramurra Hub projects (<i>ongoing</i>) - Progress renewal and opening of Marian Street Theatre (<i>short-medium term</i>) - Preparation of revised masterplan for St Ives Showground Precinct as a regional tourism and events destination (<i>ongoing</i>)
North District Plan	Planning Priority N13 Supporting growth of targeted industry sectors
Greater Sydney Region Plan	Objective 24 Economic sectors are targeted for success

Retail and commercial centres

Ku-ring-gai Local Planning Priority

K25. Providing for the retail and commercial needs of the local community within Ku-ring-gai's centres

Background

Ku-ring-gai's centres comprise Primary Local Centres of Lindfield, Gordon, Turramurra and St Ives and Secondary Local Centres of Wahroonga, Pymble, Killara and Roseville. All these centres play a vital role in the local economy and provide diverse mix of office, retail, support services, community facilities and transport connections. Additionally, Ku-ring-gai has a number of smaller Neighbourhood Centres scattered throughout the local government area. These Neighbourhood Centres are generally comprised of a small cluster of strip retailing and commercial businesses that provide top up convenience shopping to the immediate surrounding residential areas.

Key findings from the community engagement undertaken in 2017 for the review of *Community Strategic Plan* found that the Local Centres could be enhanced for economic growth, and there are opportunities to increase afterhours businesses and a night time economy within Ku-ring-gai.

A *Retail Centres Study* was undertaken for Ku-ring-gai in 2005 by Hill PDA which analysed forecast demand for retail space and commercial services within centres, assessed the centres function and performance and provided directions and priorities for planning the future direction, role and function of the centres for the benefit of local businesses and residents.

The study found a significant undersupply of retail floor space within Ku-ring-gai. Due to the undersupply, Ku-ring-gai is losing more than 40% of its total household expenditure, with most escape being captured by the larger strategic centres of Hornsby, Macquarie, Chatswood and Sydney CBD.

It is estimated that Ku-ring-gai currently provides 116,000sqm of retail floorspace¹⁴. This is a very low provision of retail floorspace having regard for the total population of Ku-ring-gai. The retail floorspace provision within Ku-ring-gai is currently estimated at 0.94sqm/capita, which when compared to the Sydney Metropolitan average of 2.35sqm/capita¹⁵ is a very low provision.

Additionally, the provision of supermarkets in Ku-ring-gai is also much lower than the Sydney Metropolitan average, as shown in the table below:

Average supermarket store provision (persons per store)	
Sydney Metropolitan	11,165 persons per store
Ku-ring-gai	20,000 persons per store

Source: Deep End Services Pty Ltd, 2016, *Sydney Retail Demand and Supply Consultancy Stage 1, 2 and 3 reports*

Figure 3-1 Average Supermarket Store Provision (Persons per Store)

Strategic response

Based on the retail floorspace projections provided in the *Sydney Retail Demand and Supply Report*, Deep End Services 2016, it is estimated that Ku-ring-gai will need to provide an additional **38,000sqm -46,000sqm** of retail floorspace over the next 20 years to meet the retail demands of the growing population.

¹⁴ Deep End Services Pty Ltd, 2016, *Sydney Retail Demand and Supply Consultancy Stage 1, 2 and 3 reports*

¹⁵ Deep End Services Pty Ltd, 2016, *Sydney Retail Demand and Supply Consultancy Stage 1, 2 and 3 reports*

The estimated additional retail supply for Ku-ring-gai will be further refined within a Retail / Commercial Centres Strategy to be undertaken by Council in 2019. This strategy will provide an analysis of current and future retail trends and drivers, commercial land use patterns, changes in businesses. The Strategy will develop a centres hierarchy, and identify the type and extent of future floorspace needs for retail and commercial uses, and optimum locations for the additional floorspace. The strategy also will investigate opportunities for growth within centres, such as identifying complementary land uses that could be integrated into the centre to support its role and function, or promote activity.

Additionally, *Activate Ku-ring-gai* is a program of urban renewal and revitalisation that Council is leading in the Local Centres with the redevelopment of Council owned land acting as a catalyst. The Community Hub projects in Turramurra and Lindfield are part of this program, and will help facilitate the provision of supermarkets that act as an anchor in those areas.



Figure 3-2 Lindfield Local Centre

Based on Council's policy and research completed to date, the following principles have been identified for future land use planning for retail and commercial centres.

Principles for retail and commercial centres

- Protect or expand retail and commercial floor space within Local and Neighbourhood Centres.
- Strengthen role of Local Centres with office and higher order retail land uses.
- Prohibit retailing in Pymble Business Park.
- Provide for further growth in retail space to meet demand generated by population growth.
- Contain retailing (as oppose to dispersing or spreading it) to minimise travel times, improve convenience and improve competition within retail centres.
- Housing should not compromise a centre's primary role to provide goods and services, and the opportunity for the centre's employment function to grow and change over time.
- Support a diverse night time economy.
- Protect and improve the integrity and viability of existing centres through improving convenience level, retail offer, accessibility, beautification and ambience.
- Protect integrity and viability of existing centres from threats generated by new centres, expansion of existing centres, changes in retail hierarchy and out of centre development.
- Encourage development of supermarkets in Local Centres that lack such offer.

Ku-ring-gai Council	<p>Ku-ring-gai Local Planning Priority</p> <p><i>K25. Providing for the retail and commercial needs of the local community within Ku-ring-gai's centres</i></p>
	<p>Actions</p> <ul style="list-style-type: none"> ➤ Prepare Retail / Commercial Centres Strategy to align with population growth and address retail supply and demand in Ku-ring-gai, including the following: <ul style="list-style-type: none"> - Establish a centres hierarchy and investigate the interrelationship between centres and their roles and functions - Future demand for retail and commercial floorspace in the context of population growth, demographic changes and retail trends - Assessment of impact and influence of nearby strategic centres e.g. Hornsby and Macquarie Park. - Identify opportunities to support the role and function of centres, such as complementary land uses (<i>short term</i>): ➤ Identify future planning responses to deliver the outcomes of the Retail / Commercial Centres Strategy to 2036 (<i>short-medium term</i>)
North District Plan	<p>Planning Priority N10</p> <p>Growing investment, business opportunities and jobs in strategic centres</p>
Greater Sydney Region Plan	<p>Objective 22</p> <p>Investment and business activity in centres</p>

Employment

Ku-ring-gai Local Planning Priority

K26. Fostering a strong local economy that provides future employment opportunities in Ku-ring-gai for both residents and workers within key industries

Background

Ku-ring-gai's local economy consists of 14,436 local businesses¹⁶ and 38,052 local jobs¹⁷ which are distributed across 7 local commercial centres, a business park, a major hospital precinct, public and independent educational facilities, and dispersed neighbourhood shopping centres. The arterial infrastructure within Ku-ring-gai, being the Pacific Highway and North Shore Rail Line, are important to the local economy - acting as a spine for economic activity, with the commercial centres scattered along. The accessibility of employment lands to this infrastructure is vital for many industries.

Ku-ring-gai residents – employment

Employment

The levels of full time, part time employment and unemployment indicate the strength of the local economy and the social characteristics of the population. The employment status of Ku-ring-gai is linked to a number of factors, including age structure which influences the number of people in the work force; the economic base and employment opportunities available in the area; and the education and skill base of the population.

In 2016, the employment status of Ku-ring-gai residents was 34,310 residents employed in full time work and 19,924 residents employed in part time work. The unemployment rate within Ku-ring-gai was 4.7%, much lower than the Greater Sydney average of 6.0% in 2016¹⁸.

Education and Occupation

Educational qualifications are an important indicator for socio-economic status, economic opportunities and identifying skill gaps in the labour market. In terms of education, 47.9%¹⁹ of the Ku-ring-gai population aged 15 years and over are university educated.

Ku-ring-gai's occupation statistics quantify the occupations in which resident's work – which may be within Ku-ring-gai or elsewhere. Professionals are by far the largest occupation group for Ku-ring-gai residents (40%), followed by managers (21%), which are significantly higher than the Greater Sydney averages, and correlates with the high levels of post school qualifications held by Ku-ring-gai residents.

Occupation – Ku-ring-gai Residents 2016								
	Manager	Professional	Technician	Community, personal service	Clerical	Sales worker	Machinery	Labourer
Ku-ring-gai	21%	40%	5%	7%	14%	8%	1%	3%
Greater Sydney	14%	27%	12%	10%	15%	9%	6%	8%

Source: ABS 2016 – Occupation of employed persons

Figure 3-3 Occupation – Ku-ring-gai Residents 2016

¹⁶ ABS 2017

¹⁷ Year ending 2018 - National Institute of Economic and Industry Research 2018 (NIEIR)

¹⁸ ABS 2016 – By usual residence

¹⁹ ABS 2016

The *Ku-ring-gai and Hornsby Employment Lands Study 2008* undertaken by SGS Economic and Planning found that within Ku-ring-gai there are fewer jobs in Manager and Professional occupation categories than there are workers, suggesting a 'leakage' of employment, which is related to a lack of these higher order job opportunities within Ku-ring-gai. This results in 73% ²⁰ of Ku-ring-gai residents leaving the area every day for work to other commercial and specialist centres, such as Sydney CBD, Willoughby/Chatswood, North Sydney and Ryde/Macquarie Park where employment opportunities are more suited to their skills.

Industries and employment within Ku-ring-gai – people who work in Ku-ring-gai

Jobs and Employment

Ku-ring-gai's workforce is made up of all the people who are employed within Ku-ring-gai, regardless of where they live.

Ku-ring-gai's local economy comprised of 38,052 local jobs in the year ending 2018. A count of jobs is one of the most fundamental economic indicators of the size of the local economy, and increasing numbers of jobs generally represents a growing economy. The table below shows the growth of local jobs within Ku-ring-gai since 2006, and recent trends show that between 2016 and 2018 there has been a 7.17% increase in the number of local jobs within Ku-ring-gai.

Growth trends in local jobs – Ku-ring-gai		
Year	Number	% change
2018	38,052	+7.17%
2016	35,506	+1.15
2011	35,099	+3.13%
2006	34,033	-

Source: National Institute of Economic and Industry Research 2018 (NIEIR)

Figure 3-4 Growth trends in local jobs – Ku-ring-gai

²⁰ ABS 2016 - By place of work

Industry

The industry sectors providing the highest percentage of local employment within the Ku-ring-gai economy are shown in the table below:

Local Employment by Industry Sector	
Industry	% of local jobs
Health Care and Social Assistance	24%
Education and Training	19%
Professional, Scientific and Technical Services	12%
Retail Trade	9%
Construction	7%

Source: ABS 2016 – By place of work

Figure 3-5 Local Employment by Industry Sector

Health Care and Social Assistance is the largest employer in Ku-ring-gai Council area making up 24% of total employment. The top three industry sectors being Health Care and Social Assistance, Education and Training and Professional, Scientific and Technical Services. Combined these three industries employ over 50% of local workers within Ku-ring-gai.

The Ku-ring-gai local economy has a specialisation in health and education industries, with these sectors employing large numbers of people. It is important to note that these industries result in areas of significant employment activity outside of the Local Centres and Pymble Business Park. There are several key institutions responsible for these local jobs within the health and education sectors, including:

- SAN (Sydney Adventist Hospital)
- Lady Davidson Private Hospital
- associated specialist medical consultation services
- numerous private and public schools, both primary and secondary, such as Knox Grammar, Pymble Ladies College and the new Lindfield Learning Village

The map *Local Economy and Employment* highlights these key employment industries, by identifying schools and hospitals throughout Ku-ring-gai.

Local Business and Home Based Business

Ku-ring-gai's business sector is predominantly made up of small to medium size businesses.

Compared to Greater Sydney, Ku-ring-gai has one of the highest levels of home based occupation/business. In 2011 the proportion of home based businesses in Ku-ring-gai was 5%, double the greater Sydney average of 2.5%²¹. Home based occupation /business results in significant employment activity in the residential areas of Ku-ring-gai, outside of Local Centres and Pymble Business Park.

²¹ ABS 2011 – methods of travel to work (residents)

Consultation undertaken by SGS Economics and Planning for the *Ku-ring-gai and Hornsby Employment Lands Study 2008* with home based business operating within Ku-ring-gai suggested that work from home is driven by the benefits of this way of working i.e lifestyle benefits such as flexibility in work hours and avoidance of commute to work, rather than a shortage of suitable business space elsewhere.

Specialised precincts

- **CSIRO - Research and Innovation**

The CSIRO (Commonwealth Scientific and Industrial Research Organisation) is Australia's national scientific research agency. The CSIRO site at Lindfield is the largest research site in Sydney, which currently employs approximately 300 researchers, who work mostly on physics and materials sciences.

CSIRO are planning to upgrade the research facilities at the Lindfield site with construction due to start in 2019 as part of the proposed Sydney Consolidation Project. This project will result in the decommissioning of CSIRO sites at Marsfield and North Ryde, with staff relocating to Lindfield. The total number of staff at the Lindfield site is expected to rise from approximately 300 to 600 by 2021. Over time, the increase in staff working at the Lindfield site is expected to bring additional research and commercial activity to the CSIRO site while enhancing local business activity and opportunities in the Lindfield area.

The CSIRO Lindfield Site also includes the Lindfield Collaboration Hub, which is an innovation incubator and dedicated space offering collaborative work spaces for start-ups and small to medium enterprises (SMEs) to develop unique, high-tech products and devices. Early stage and established companies can move to CSIRO's Lindfield campus and access the facilities, science know-how, experience and business networks. In 2018, there were 14 companies with 190 staff as tenants as part of the Lindfield Collaboration Hub. The CSIRO is identified on the map *Local Economy and Employment* as a research and innovation precinct.

- **The SAN - Health and Education**

Ku-ring-gai does not have any identified health or education precinct within the *North District Plan*, however the Sydney Adventist Hospital (SAN), the largest private hospital in NSW and a combined health and education facility is located in Wahroonga. The SAN is a teaching hospital of University of Sydney and Avondale College, as well as operating its own educational college. The precinct includes non-government K-12 School and plans for approximately 500 dwellings, further student/nurse accommodation associated with the hospital and additional commercial space, and accordingly the SAN is identified on the map *Local Economy and Employment* as a health and education precinct.

The SAN Hospital employed 2,423 staff in 2018, which accounts for about a third of all the health related jobs within Ku-ring-gai. The SAN is possibly the single largest employer within Ku-ring-gai, and as such a significant employer, the SAN plays an important role in catering for any future employment growth within Ku-ring-gai.

- **Pymble Business Park**

The Pymble Business Park comprises approximately 12.5ha of land west of the intersection of the Pacific Highway and Ryde Road, and land to the east of the Pacific Highway and North Shore rail line. The Business Park accommodates a range of land uses including freight, logistics, office, warehousing and local light industry, and a Bunnings Hardware store has recently been approved. The Pymble Business Park is identified on the map *Local Economy and Employment*.

Pymble Business Park is Ku-ring-gai's only Urban Services land, and is identified as 'retain and manage' within the *North District Plan*. The value of urban services land is not held in how many jobs they directly provide; by in the operational role and function they play.

As of 2006 it was estimated that there was 88,999sqm employment floor space within the Business Park²², and that the Business Park accounts for one third of Ku-ring-gai's office and business park floor space.

²² SGS Economic and Planning, 2008, *Ku-ring-gai and Hornsby Subregional Employment Study – Final Report*

Previous studies such as the *Hornsby and Ku-ring-gai Employment Lands Study 2008* have set the strategic direction to discourage retail development within Pymble Business Park.

Pymble Business Park currently experiences high vacancy rates. Transport connectivity is a barrier to optimal utilisation of this area, as well as adjoining biodiversity significant lands, and contamination.



Figure 3-6 Pymble Business Park

Strategic response

As the population grows, it will be important for the local economy and jobs to grow to support the Ku-ring-gai community into the future.

The number of residents leaving Ku-ring-gai everyday for work will continue to place demand on transport infrastructure linking Ku-ring-gai to surrounding strategic centres, such as Sydney CBD, Willoughby, North Sydney, Macquarie Park and Hornsby. There is a need for more skilled jobs closer to home. Key findings from the community engagement undertaken in 2017 for the review of the *Community Strategic Plan* also indicated that there are more opportunities to be provided within Ku-ring-gai for local employment and the Ku-ring-gai local economy should be further developed. Facilitating more local economic and job growth, particularly across existing key industry sectors is important. Council will need to undertake a new Employment Lands Study to provide a more detailed strategic review of employment activities within Ku-ring-gai.

Ku-ring-gai has high levels of home based businesses, and findings from the community engagement undertaken in 2017 for the review of the *Community Strategic Plan* showed that there was desire from the community to see co-working hubs for businesses and people who work from home to be provided. The new Employment Lands Study will need to further investigate and assess the needs and opportunities for smart work hubs within Ku-ring-gai, which may make home based work a more viable option for more people. Home based work presents an opportunity for economic growth to build on Ku-ring-gai's assets, but may also present a threat to Local Centres and Pymble Business Park if growth in home based work occurs at the expense of growth in employment centres.

With regards to Pymble Business Park a specific investigation will be required into the future strategic role and function of this area, its floor space and land uses. The investigation will quantify the current floor space, jobs and contribution Pymble Business Park as an Urban Services land makes to the local economy.

The Health and Education sectors contribute significantly to employment and the local economy within Ku-ring-gai. However, one of the key challenges is that while these institutions (private schools and private

hospitals, such as the SAN) are large employers within Ku-ring-gai, Council will need to manage the impacts of future growth on the surrounding areas and infrastructure.

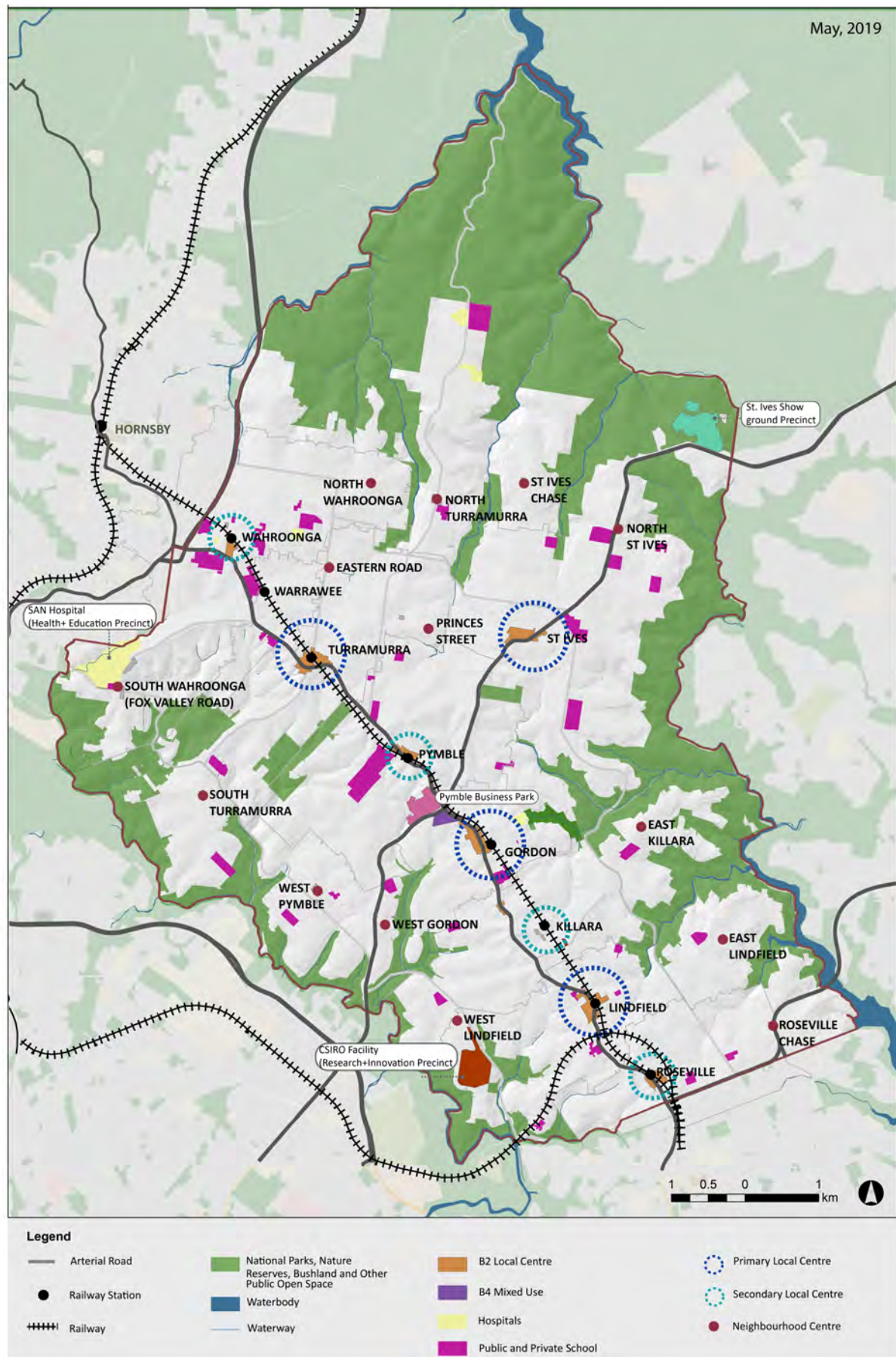
Based on Council's policy and research to date the following principles are identified for future land use planning related to the local economy and employment.

Principles for local economy and employment

- Protect or expand employment opportunities within Local and Neighbourhood centres and Pymble Business Park.
- Protect or expand employment opportunities within key industry sectors, including:
 - Health Care and Social Assistance
 - Education and Training
 - Professional, Scientific and Technical Services
 - Retail Trade.
- Provide a balance of 'local service' and 'employment destinations' – the *North District Plan* provides clear indication that economic growth should be concentrated in centres, however many smaller centres in Ku-ring-gai are fulfilling higher order functions
- Retain and manage urban services land - Pymble Business Park.
- Discourage retail and residential development in Pymble Business Park.
- Encourage centralised services such as smart work hubs for home based work.
- Protect current employment levels in retailing and hospitality industries and expand opportunities for further employment.
- Provide opportunities for local employment and start-up business for local residents.
- The provision of housing should not compromise a centre's primary role to provide goods and services, and the opportunity for the centre's employment function to grow and change over time.

<p>Ku-ring-gai Council</p>	<p>Ku-ring-gai Local Planning Priority <i>K26. Fostering a strong local economy that provides future employment opportunities in Ku-ring-gai for both residents and workers within key industries</i></p> <p>Actions</p> <ul style="list-style-type: none"> ➤ Prepare Employment Lands Study to: <ul style="list-style-type: none"> - Undertake a detailed strategic review of employment activities within Ku-ring-gai including current and future floor space requirements, jobs, local businesses and contribution of commercial lands to local economy - Assess impacts of the high cost of small office rentals in strategic centres, and the loss of commercial office space due to residential take up - investigate employment opportunities arising from new technology and innovation - Investigate home based businesses and demand for supporting infrastructure such as smart work hubs - Investigate the contribution the SAN and the CSIRO make to Ku-ring-gai's local economy, as well as any opportunities for other potential co-located facilities such as accommodation, commercial and mixed use development. <i>(short term)</i> ➤ Undertake an investigation of Pymble Business Park to consider the current and future strategic role and function, floor space and land uses. <i>(short term)</i>
<p>North District Plan</p>	<p>Planning Priority N9 Growing and investing in health and education precincts</p> <p>Planning Priority N10 Growing investment, business opportunities and jobs in strategic centres</p> <p>Planning Priority N11 Retaining and managing urban services land</p>
<p>Greater Sydney Region Plan</p>	<p>Objective 22 Investment and business activity in centres</p> <p>Objective 21 Internationally competitive health, education, research and innovation precincts</p> <p>Objective 23 Industrial and urban services land is planned, retained and managed</p>

Map – Local Economy and Employment



4 - SUSTAINABILITY

Open Space Network

Ku-ring-gai Local Planning Priority

K27. Ensuring the provision of sufficient open space to meet the need of a growing and changing community

Background

The Ku-ring-gai local government area has 3,356 hectares of open space, including the following:

- 1747 hectares of bushland within three local national parks;
- 1151 hectares of natural areas;
- 98 hectares of parkland and gardens;
- 116 hectares of sportsgrounds;
- 68 hectares of Council owned golf course;
- 176 hectares of drainage reserve.

Planning for open space in Ku-ring-gai to date has been based on the following strategies and studies:

- Ku-ring-gai Open Space Strategy, 2005
- Ku-ring-gai Open Space Acquisition Strategy, 2006
- Ku-ring-gai Contributions Plan, 2010

The *Open Space Strategy, 2005* found the following issues for open space planning:

- the LGA has a generous supply of environmentally significant open space; with National Parks and Council-managed reserves constituting the majority of Ku-ring-gai's greenspace. While these areas are a valuable resource, they do not fulfil all the open space needs of residents as they are not accessible to all members of the community and recreation potential is limited due to topography and environmental sensitivities;
- the provision of sportsgrounds is comparative to the traditional standards, however, sports club demands and levels of use indicate that there are insufficient facilities to meet present and anticipated future needs;
- the provision of local parkland across the LGA is low when compared to traditional standards;
- There are inequities in parkland provision across the LGA with particularly low per capita provision in Lindfield, Gordon and Roseville;
- about one third of parks are less than 0.2 hectares in size which limits the provision of a diversity of recreation opportunities;
- due to these distributional inequities and the limited size of many parks a significant proportion of the residences are not adequately serviced by high quality local parkland;
- About three-quarters of properties across the LGA are within walking distance of a park; this proportion varies across the LGA with Gordon and Roseville having the highest proportion of houses outside a park service area; and
- There are significant barriers to park access in Ku-ring-gai the most significant being the Pacific Highway, the rail corridor and the topography (valleys, bushland, creeks etc).

In response to the shortfall in the provision of local parkland identified in the *Open Space Strategy* Council prepared two key documents:

- *Ku-ring-gai Open Space Acquisition Strategy, 2006 (OSAS); and*
- *Ku-ring-gai Contributions Plan 2010.*

The OSAS establishes a series of principles for acquisition of open space and identifies priority areas for acquisition based on existing quantum of open space and projected population growth. The Figure 4-1 below shows the priority areas for land acquisition identified in the OSAS where red and orange represent priority 1-3 (highest priority) and other colours represent priority 4-6 (lowest priority). Figure 4-2 shows the current status of council's acquisition program including new or proposed parks. Notable is the reduction in priority 1-3 ranked areas.

In 2010 Council adopted the *Ku-ring-gai Contributions Plan 2010* which seeks to maintain baseline rates of provision of local open space parkland within the Local Government Area. The plan establishes:

- causal nexus between new development and the demand for additional open space;
- causal nexus between new development and the demand for the embellishment of existing open space;
- geographic and temporal nexus requirements that ensures provision of strategically located open space and civic spaces on a rolling programme of acquisition

The Ku-ring-gai Contributions Plan 2010 allows Council to acquire and deliver over 50,000m² of new local parks and civic spaces within close proximity to high density residential areas in Ku-ring-gai over the next 20 years. Since 2010 Council has been actively acquiring land and converting the land to new parks. To date Council has created, or is in the process of creating, over 23,000sqm of new parks and civic spaces.

New parklands that have been delivered and opened to the public so far include:

- Balcombe Park, Wahroonga (900m²)
- Curtilage Park, Warrawee (2,000m²)
- Greengate Park, Killara (2,600m²)
- Cameron Park extension, Turramurra (2,600m²)
- Lapwing Reserve, St Ives (1,900m²)

New parks currently in the design or acquisition phase include:

- Allan Avenue Reserve, Turramurra (2,700m²)
- Lindfield Village Hub Park, Lindfield (3,500m²)
- Lindfield Village Green (3,000m²)
- Bedes Forest Reserve Extension, St Ives (3,000m²)
- Dumaresq Street Park, Gordon (3,500m²)

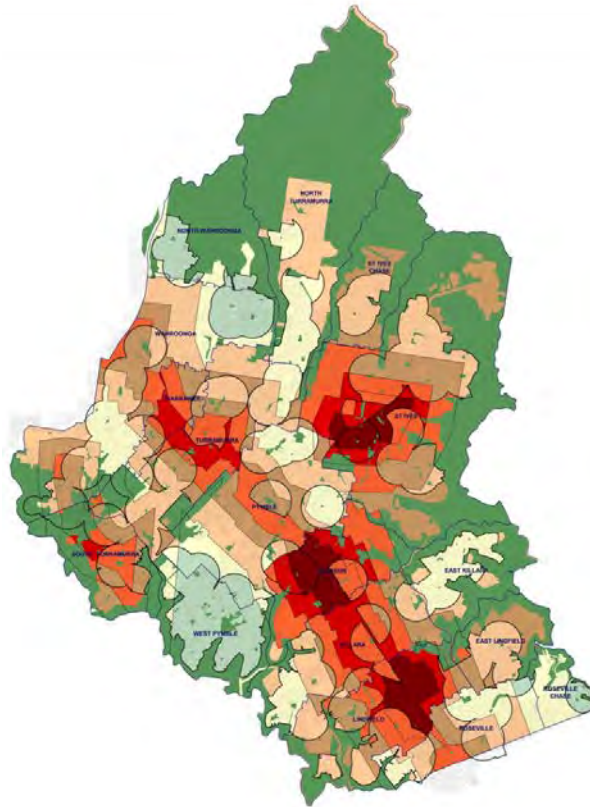


Figure 4-1 - Ku-ring-gai Open Space Acquisition Program – 2006 Priority Acquisition Areas



Figure 4-2 - Ku-ring-gai Open space Acquisition Program – Implementation Status – May 2018

Strategic response

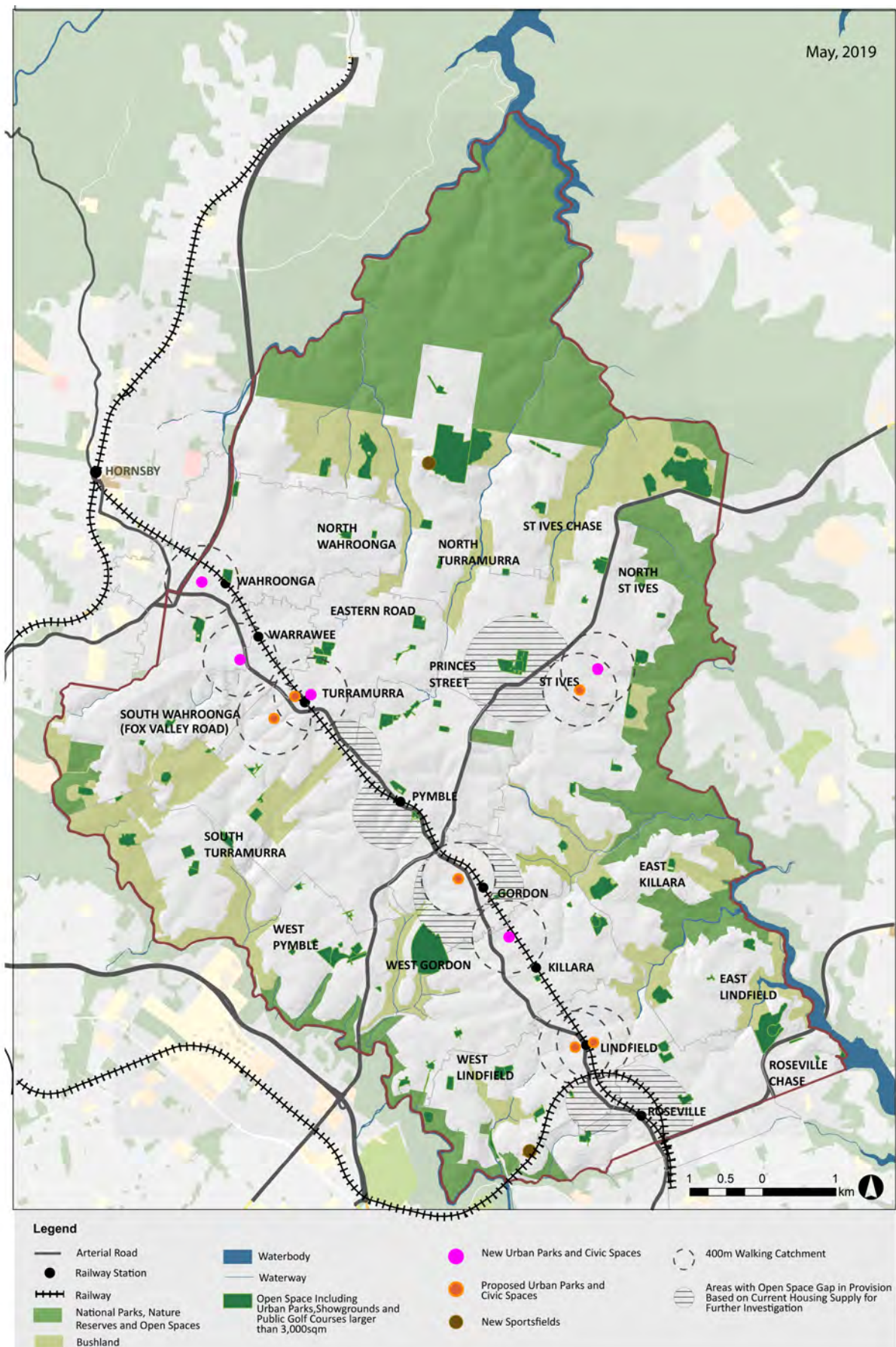
Significant progress has been made since 2010 in terms of creating new parks; at this point in time Council is just over halfway through the delivery program set out in the Ku-ring-gai Contributions Plan 2010. It is now timely to take stock and undertake a review of our baseline position. Council last prepared an open space strategy in 2005 and considerable change has happened over that time particularly in relation to population growth, acquisitions and policy settings.

The revised Open Space Strategy will provide the overarching framework and strategic direction for public open space planning in Ku-ring-gai for the next 15-20 years. The strategy will include consideration of the forecast population change and provide the strategic basis for amendments to Council's development contribution plans to fund ongoing land acquisition and upgrades to existing open space areas. Supporting the strategy will be technical research, definitions, analysis and recommendations' including consideration of standards for provision of open space; assessment of the quantity and distribution of open space; and key drivers for open space planning in the future. Detailed analysis of areas/precincts with identified gaps in open space provision will also be undertaken to identify potential locations for new parks.

The Strategy will also integrate planning for future open space and recreation needs with Council's existing State government policies and council policies including the Open Space Acquisition Strategy, draft Recreation in Natural Areas Strategy, draft Playground Strategy, and Ku-ring-gai Bicycle Plan among others.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priority <i>K27. Ensuring the provision of sufficient open space to meet the need of a growing and changing community</i>
	Actions <ul style="list-style-type: none"> ➤ Prepare a revised Open Space Strategy that will provide the overarching framework and strategic direction for public open space planning in Ku-ring-gai for the next 15-20 years (<i>short-medium term</i>) ➤ Undertake detailed analysis of areas/precincts with identified gaps in open space provision for potential locations for new parks(<i>short-medium term</i>) ➤ Integrate the new Open Space Strategy with current state government and council policies (<i>medium term</i>)
North District Plan	Planning Priority N20 Delivering high quality open space
Greater Sydney Region Plan	Objective 31 Public open space is accessible, protected and enhanced

Map – Open Space Network



Bushland and Biodiversity

Ku-ring-gai Local Planning Priorities

K28. Improve the condition of Ku-ring-gai's bushland and protecting native terrestrial and aquatic flora and fauna and their habitats

K29. Enhancing the biodiversity values and ecosystem function services of Ku-ring-gai's natural assets

Background

The Ku-ring-gai Local Government Area (LGA) contains significant bushland and a unique combination of soils, topography, vegetation and fauna habitats which support high biodiversity. The unique vegetation provides critical habitat for many species with highly restricted distributions.

Many threatened plants, mammals, birds, reptiles, amphibians and invertebrates have been recorded within the LGA and the adjoining national parks. A number of significant vegetation associations are also present in the area, including many that are commensurate with threatened listed ecological communities under the NSW *Biodiversity Conservation Act 2016* and *Environment Protection and Biodiversity Conservation Act 1999*. Ku-ring-gai also contains a nationally significant camp of Grey-headed Flying-fox.

Extensive logging in colonial years and, more recently, the intensification and sprawl of urban development (to cope with increased population), has impacted the environment of Ku-ring-gai. Planning and land use activities has resulted in a massive decline in the extent of ecological communities, particularly those associated with the more fertile shale derived soils, such as Blue Gum High Forest and Sydney Turpentine Ironbark Forest. In the case of Blue Gum High Forest, less than 1% of the original extent remains today.

Despite the above mentioned reduction of vegetative cover, the LGA has an important and diverse urban forest incorporating intact and significant bushland areas, a mosaic of tree canopy and vegetation within private property which forms linkages to and within the LGA and provides some connection to the adjoining national parks and other tenure. The urban forest is a defining and valued character of the LGA and supports its biodiversity and amenity.

Wildlife corridors within Ku-ring-gai, which facilitate movement and gene flow across the landscape, connecting otherwise fragmented remnants and ecosystems, is central to conservation management. Corridors are generally linear connections between areas of similar habitat which enable the spread and movement of, and maintenance of biological diversity. Wildlife corridor is a general term and the function of a corridor to provide benefit is determined partly by the corridors characteristics (size, structure, location) and partly by the ecological needs of target species. What may constitute a good corridor for one species does not necessarily meet the needs of another species.

There are 119 bushland reserves and 1,151 hectares of natural areas in the Ku-ring-gai LGA. These are managed in accordance with the Bushland Plan of Management 2013. Ku-ring-gai has an engaged community who highly value the area's biodiversity. Ku-ring-gai's volunteer programs, including Bushcare, have very high participation rates with 700+ members working with Council to enhance and protect the ecological systems which are still present. Council LEP and DCP have strong biodiversity and riparian controls and mapping; including riparian lands and Greenweb (biodiversity) mapping, which highlight environmentally sensitive landscapes and waterways.

Bushland and biodiversity impacts are managed in accordance with a number of policies which seek to enhance and protect biodiversity. These include the Biodiversity Policy (2016), Fauna Management Policy (2016) and Dumping and Encroachment in Bushland Policy (2016). Increased population and further urban development, as well as the associated introduction of weeds, pests, increased erosion, nutrients and loss of habitat and connectivity, compounded by climate change, continue to threaten the biodiversity values of Ku-ring-gai.

Strategic response

To prevent a decline in biodiversity, Council will continue to strengthen its local planning controls and seek strategic alignment with NSW government initiatives and guidelines. Management of bushland will continue to be guided by the Bushland Plan of Management which will be reviewed in 2020. Additionally, specific site management plans will be developed for complex or significant sites throughout the LGA.

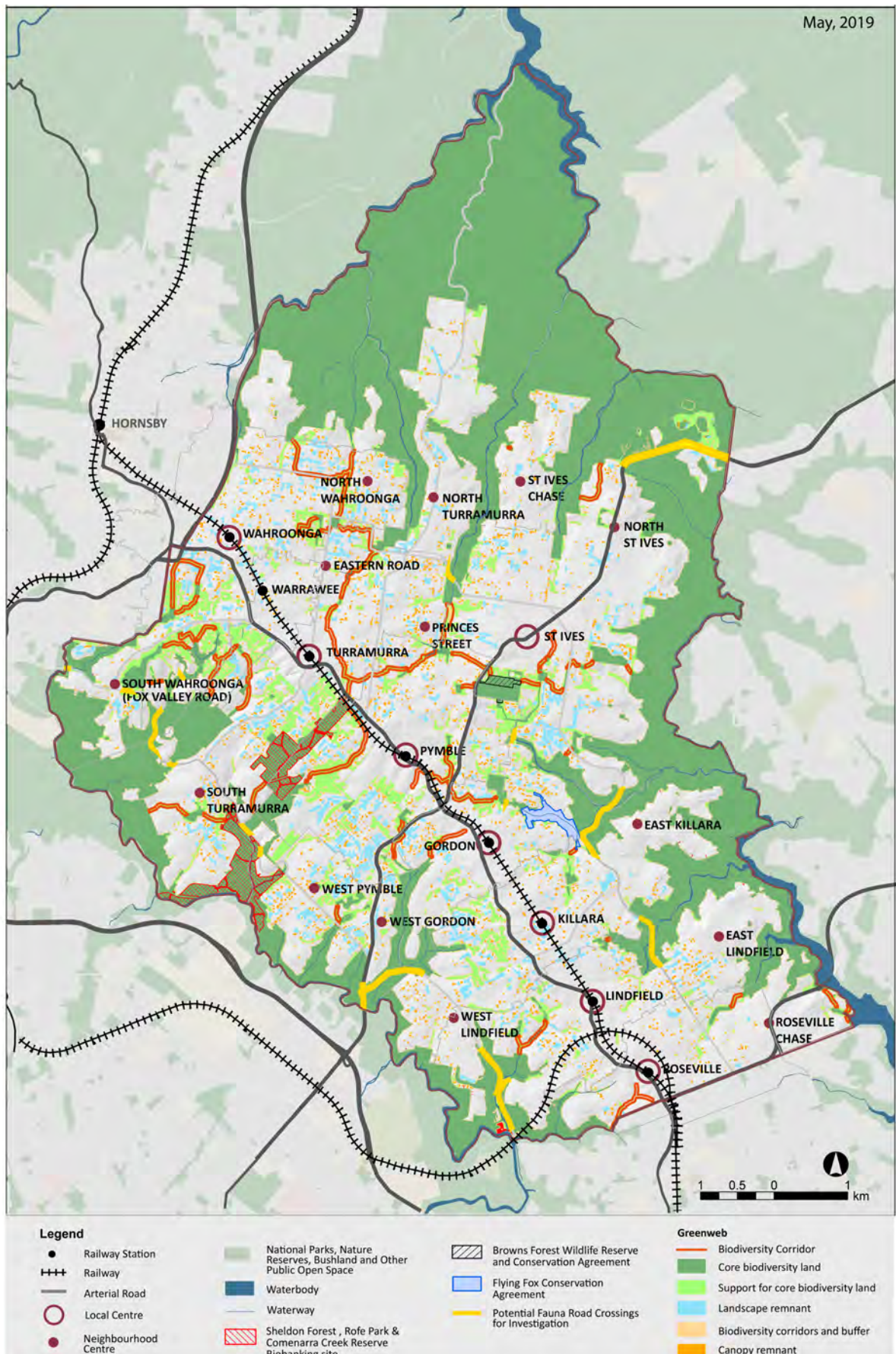
Council will seek to ensure no net loss is achieved within the LGA via strengthening planning documents and operating under the mitigation hierarchy of avoid, minimise and mitigate, with residual impacts offset in accordance with the NSW Biodiversity Assessment Methodology or the Ku-ring-gai Biodiversity Offsetting Code of Practice (for council works).

A large component of biodiversity management will be addressed through the Urban Forest Policy and Strategy and the improvement to Ku-ring-gai's Green Grid network, which are addressed in the Urban Forest (Planning Priorities K30 and K31), Green Grid (Planning Priorities K32, K33 and K34) and Water Sensitive City (Planning Priorities K35, K36 and K37). To inform opportunities and complement delivery of the Green Grid Strategy and Urban Forest Strategy as addressed within Planning Priorities identified above; Council will undertake further investigation and implementation of biodiversity corridor improvements including, opportunities for Urban Forest replenishment, habitat creation and fauna road crossing priority projects.

Biodiversity management will be incorporated into further reviews, or the development of, relevant policies, including the development of the Natural Areas Plan of Management, the Urban Forest Policy and Strategy, the Recreation in Natural Areas Strategy and the Water Sensitive City Strategy and biodiversity corridors will be protected and enhanced through Greenweb in Council's DCP. The biodiversity provisions within Council's LEP and DCP will address legislative changes and controls relating to the no net loss of significant vegetation or habitat. In order to ensure the relevance of Council's biodiversity provisions, in the LEP and DCP, Council will seek to update their existing vegetation and canopy mapping.

Ku-ring-gai Council	<p>Ku-ring-gai Local Planning Priorities</p> <p><i>K28. Improving the condition of Ku-ring-gai's bushland and protecting native terrestrial and aquatic flora and fauna and their habitats</i></p>
	<p><i>K29. Enhancing the biodiversity values and ecosystem function services of Ku-ring-gai's natural assets</i></p>
	<p>Actions</p> <ul style="list-style-type: none"> ➤ Develop and implement Natural Areas Plan of Management (<i>short term</i>) ➤ Review and implement Biodiversity Policy (<i>short-medium term</i>) ➤ Review and implement Fauna Management Policy (<i>short-medium term</i>) ➤ Undertake further investigation and implementation of biodiversity corridor improvements including, Urban Forest replenishment, habitat creation and fauna road crossing priority projects (<i>short-medium term</i>) ➤ Review biodiversity provisions within Council's LEP and DCP to address legislative changes and consider controls relating to no net loss of significant vegetation or habitat (<i>short term</i>) ➤ Review Greenweb mapping (within Council's DCP) and lands identified as "Biodiversity" on the Terrestrial Biodiversity Map (within the LEP), to reflect changes to legislation, land use, vegetation and results of biodiversity corridors and fauna road crossings investigations (<i>short term</i>)
North District Plan	<p>Planning Priority N16</p> <p>Protecting and enhancing bushland and biodiversity</p>
Greater Sydney Region Plan	<p>Objective 27</p> <p>Biodiversity is protected and urban bushland and remnant vegetation is enhanced</p>

Map – Ecology



Urban Forest

Ku-ring-gai Local Planning Priorities

K30. Improving the quality and diversity of Ku-ring-gai's urban forest

K31. Increasing, managing and protecting Ku-ring-gai's urban tree canopy

Background

Ku-ring-gai's Urban Forest is comprised of all trees, other vegetation and the soil and water that support these. It includes the network of natural, semi-natural and built vegetated systems within both public and private ownership.

Like many cities around the world Ku-ring-gai recognises our Urban Forest as a significant community asset that is an essential part of a liveable, economically and ecologically sound community. Unlike traditional infrastructure such as roads and storm water systems, a well-managed Urban Forest accrues value and provides greater services over time. Providing a range of benefits including:

- Enabling reduction of energy consumption;
- Increased land and property values;
- Increased social and health well being;
- Reducing urban heat island effects;
- Reduces air pollution; and
- Land stabilisation and erosion reduction
- Improved groundwater recharge and reduced impacts from storm water runoff (including flooding);
- Biodiversity and habitat.

The shift from Council's traditional (and in some cases current) management approach being the management of "trees and vegetation" to "Urban Forest" management, is an important step in improving the quality and diversity of Ku-ring-gai's Urban Forest. This transition enables consideration of interrelated issues such as:

- Biodiversity and ecosystem services;
- Open space and public recreation needs;
- Water sensitive design;
- Urban heat island;
- Climate change and extreme weather events (bushfire, storm, drought);
- Development pressures from urbanisation and projected population growth (housing needs).

Known as the 'Green Heart' of Sydney, Ku-ring-gai contains diverse natural habitats and rich biodiversity. Ku-ring-gai has long recognised the benefits and importance of its urban forest, with resident surveys from 1998 identifying "greening and tree preservation" as an issue of high importance to the community (Hunter Valley Research Foundation 1998). Into the 21st Century this has continued to be a relevant issue, with continued emphasis on preservation of the natural environment, including the tree canopy, identified within *Community Strategic Plans* adopted by Council in 2013 and 2018. Residents of all ages continue to support preserving the leafy character, bushland and green spaces of Ku-ring-gai and protecting the future of its urban forest²³.

Pressure from development, bushfire risk mitigation, severe weather events and in recent years significant legislative changes (including 10/50 Vegetation Clearing Code of Practice for New South Wales [RFS 2015]), have impacted upon the extent and density of Ku-ring-gai's Urban Forest (particularly large trees).

Canopy mapping within Ku-ring-gai was undertaken biennially between 1990 and 2002 (as shown in Figure 4-3). Since this time canopy extents have been mapped through vegetation mapping;

²³ Ku-ring-gai Council, 2008. Sustainability Vision Report 2008-2033

including LGA wide mapping using 2005 aerial imagery, and localised mapping using aerial imagery from 2006 – 2017 as needed.

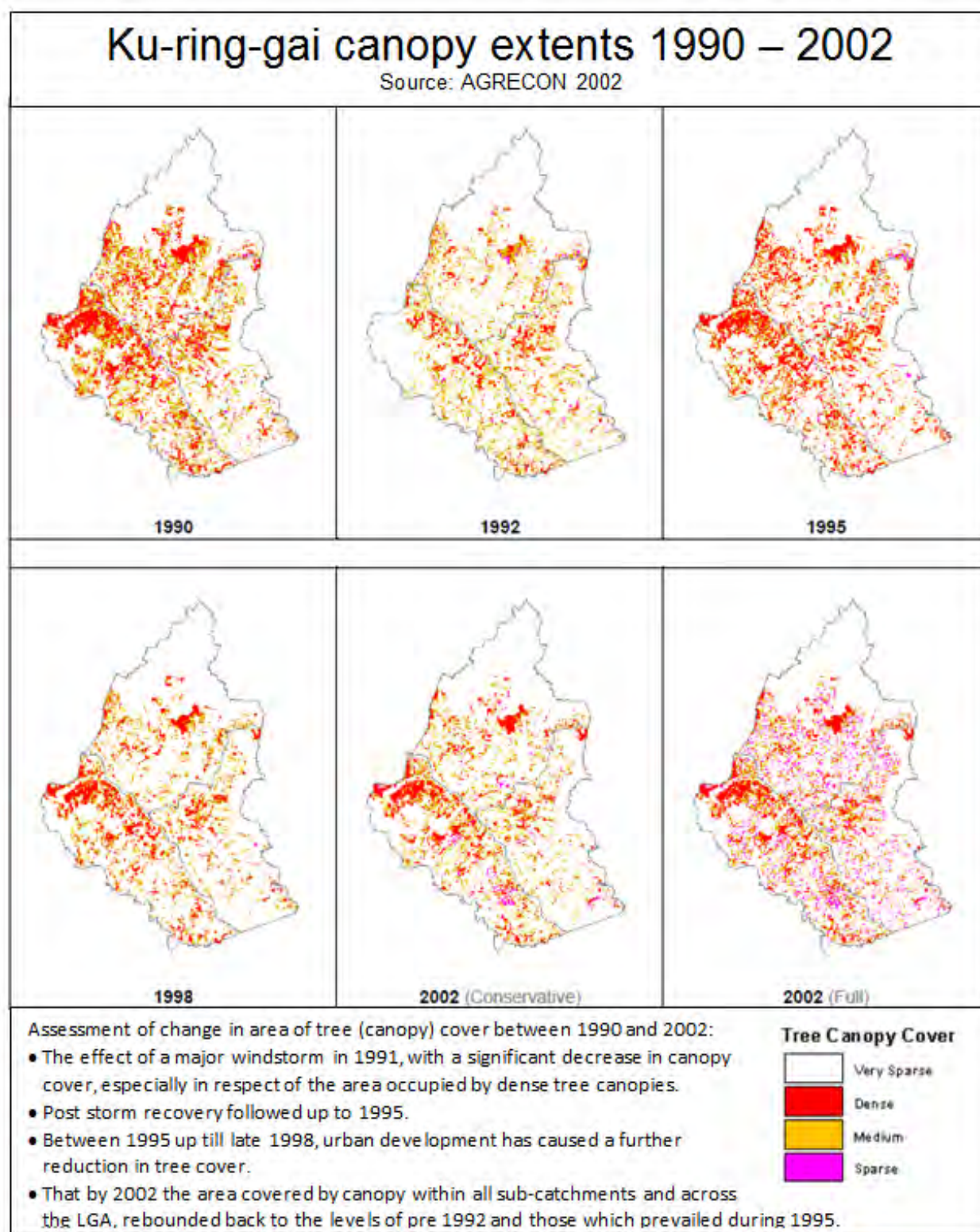


Figure 4-3 – Past Canopy Mapping²⁴

²⁴ Source: AGRECON, 2002. Ku-ring-gai Municipal Council Tree Cover Assessment

In 2014 a joint study of tree cover (between the NSW University of Technology and 2020 Vision [Jacobs, 2014], indicated that Ku-ring-gai had a 52.1% tree coverage. At the time, this was the fourth highest amongst the 39 NSW Local Government Areas studied. Recently the Office of Environment and Heritage commissioned mapping of urban vegetation cover from 2016 for the Greater Sydney Region, providing % canopy for property boundaries, see map *Urban Vegetation Cover – Tree Canopy*.

Council has a long history of supporting Canopy replenishment. Council's commitment to canopy replenishment increased in the late nineties, in response to an identified canopy decline. The program focused on increasing canopy and development of a more sustainable mixed aged tree population on Open Space land and road reserves. This initiative resulted in planting of over 15,000 trees in all streets and parks within its LGA between 2000 and 2009 (with a 48% mortality rate). This canopy replenishment program is ongoing with a reduced operational budget since 2009.

Canopy has been protected within Council's LEP and DCP planning controls via; deep soil and landscape /planting provisions, a Tree Preservation Order (and more recently a Tree and Vegetation preservation clause), and Riparian Land and Biodiversity mapping and controls.

Strategic response

To support Ku-ring-gai's transition to Urban Forest management, Council is developing an Urban Forest Policy and Strategy. Through these documents council seek to:

- Improve the quality and diversity of Ku-ring-gai's urban forest; and
- Increase, manage and protect Ku-ring-gai's urban tree canopy (as supported by the Greater Sydney Region Plan (Objective 30) and North District Plan (Planning Priority N19) – see table below).

It will be important for Council to ensure that future urban forest management and targets address limitations imposed by the LGA's existing canopy cover, bush fire prone nature and future planned development.

These documents will amongst other things set canopy coverage target for the LGA and inform the transition of Council's Canopy Replenishment Program to an Urban Forest Replenishment Program. It will also inform investigations regarding the creation and maintenance of a public land and street tree inventory and relevant tree management guidelines.

Further work is required to update Council's existing Street Tree Master Plan. This will inform composition and species selection of Council's street tree's; directing amongst other things tree management and planting, within Heritage Conservation Areas, biodiversity corridors and the public domain areas.

Council recognised that the Urban Forest as a continuous resource regardless of ownership boundaries and seeks to collaborate with other agencies and council's to improve urban forest management and strengthen partnerships. This will include advocating for Basix to be updated and strengthened to incorporate green infrastructure.

Council will review relevant LEP and DCP provisions, in order to support the Urban Forest Policy and Strategy implementation (including addressing canopy / urban forest targets) and address legislative changes, including the NSW Biodiversity Conservation Act 2016, 10/50 Vegetation Clearing Code of Practice for New South Wales [RFS 2015] and State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

Council will investigate creation and implementation of an Urban Forest Monitoring Program, which:

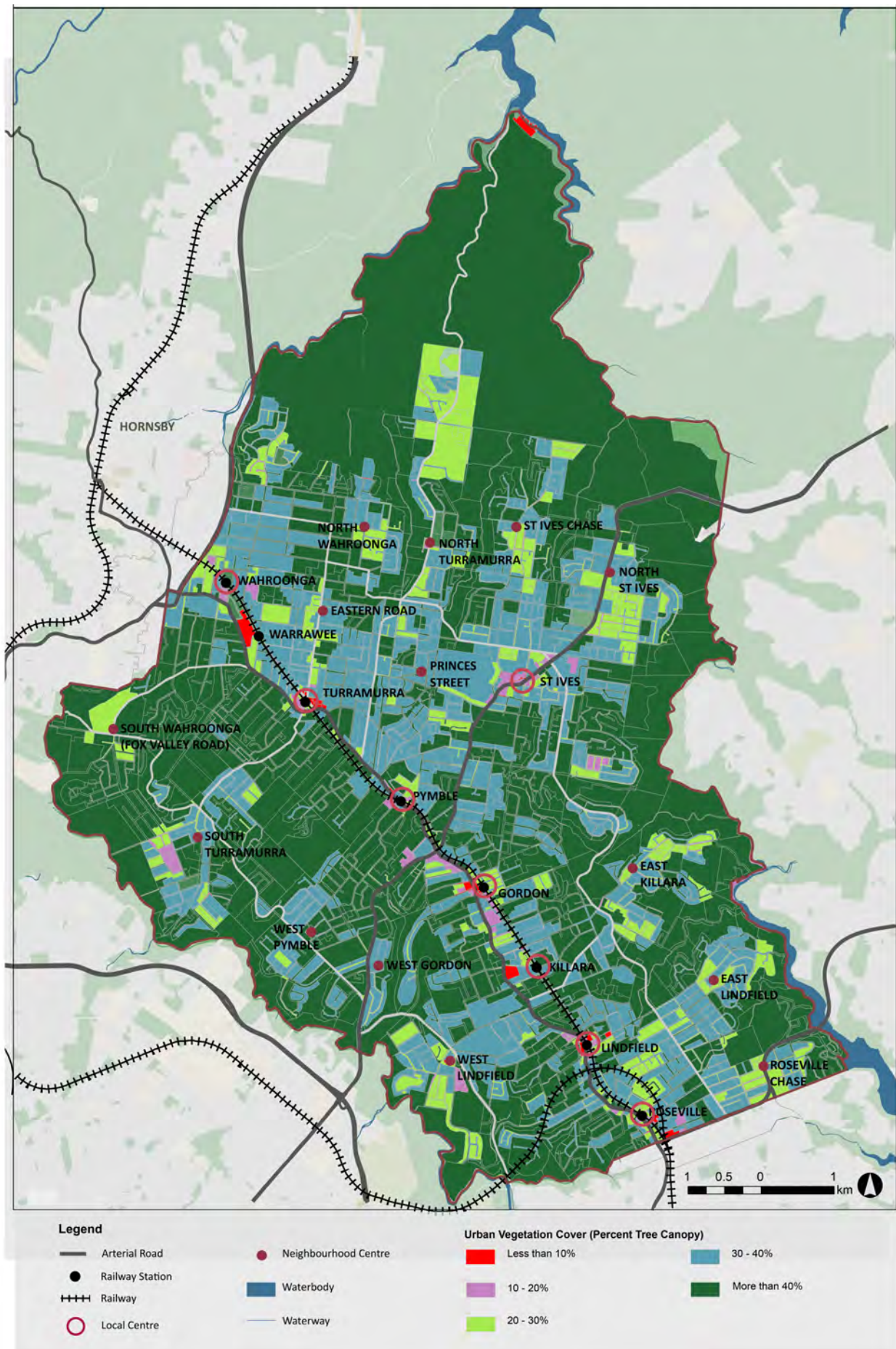
- Improves understanding of Ku-ring-gai's existing and future urban forest extent, condition and composition;
- Assesses canopy, shrub and ground cover;

- Provides periodic mapping and evaluation against a current baseline, informed by historic changes; enabling integration of future technology and on ground outcomes;
- Addresses constraints of history mapping, resultant from continued improvements in mapping technology (improving scale and detail);
- Aligns with relevant regional / state / national mapping and monitoring;
- Investigates the integration of Urban Heat Mapping;
- Integrates and informs existing vegetation and biodiversity mapping and monitoring programs (as directed by Ku-ring-gai's Biodiversity Policy);
- Facilitates assessment of relevant provisions within Ku-ring-gai's LEP and DCP (including Biodiversity and Tree and Vegetation controls);
- Inform future Ku-ring-gai Bushfire Prone Land Mapping;
- Facilitates monitoring and implementation of Green Infrastructure and Green Grid within the LGA;

Other actions and issues that relate to Urban Forests within Ku-ring-gai are addressed within the following sections of this report, Green Grid Planning Priorities K32, K33 and K34, Bushland and Biodiversity Planning Priorities K28 and K29, Climate Change Resilience and Adaptation Planning Priorities K39 and K40, Water Sensitive City Planning Priorities K35, K36, and K37 and Energy and Greenhouse Gas Emissions Planning Priority K38.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priorities
	K30. Improving the quality and diversity of Ku-ring-gai's urban forest
	K31. Increasing, managing and protecting Ku-ring-gai's urban tree canopy
Ku-ring-gai Council	Actions
	<ul style="list-style-type: none"> ➤ Implement the Urban Forest Replenishment Program (<i>ongoing</i>) ➤ Develop and implement an Urban Forest Policy (2019/20) and an Urban Forest Strategy (2020-21), which set canopy coverage targets for the LGA. (<i>short term</i>) ➤ Investigate creation and implementation of an Urban Forest Monitoring Program. (<i>short term</i>) ➤ Investigate review of landscape and street tree planting strategies and guidelines. Including Council's current Street Tree Masterplan to inform species selection and composition. (<i>medium term</i>) ➤ Investigate the creation and maintenance of a public land and street tree inventory to improve council programs and identify new opportunities. (<i>medium term</i>) ➤ Investigate and refine LEP /DCP controls to support Council meet its Canopy / Urban Forest targets set within the Urban Forest Strategy. Including canopy protection, planting, deep soil requirements. (<i>short term</i>) ➤ Review DCP Tree and Vegetation Preservation provisions and associated Council's guidelines to align with State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017. (<i>short term</i>) ➤ Investigate options for increasing pervious surfaces within sites and green infrastructure (roofs, walls and WSUD) to be included within built infrastructure (including buildings). Including guidelines and LEP and DCP provisions. (<i>medium term</i>) ➤ Support enhancements to the Urban Forest (including canopy cover) through public domain <i>planting (ongoing)</i> ➤ Collaborate with other agencies to build and strengthen partnerships (<i>ongoing</i>) ➤ Advocate for Basix to be updated and strengthened to incorporate green infrastructure. (<i>ongoing</i>) ➤ Support priority actions in the Biodiversity Policy (<i>ongoing</i>)
North District Plan	Planning Priority N19 Increasing urban tree canopy cover and delivering Green Grid connections
Greater Sydney Region Plan	Objective 30 Urban tree canopy cover is increased
	Objective 32 The Green Grid links parks, open spaces, bushland and walking and cycling paths

Map – Urban Vegetation Cover – Tree Canopy



Green Grid

Ku-ring-gai Local Planning Priorities

K32. Protecting and improving Green Grid connections

K33. Providing a network of walking and cycling links for leisure and recreation

K34. Improving connections with natural areas including river and creek corridors, bushland reserves and National Parks

Background

Ku-ring-gai's liveability and sustainability rely on maintaining, managing and planning for green infrastructure. Green infrastructure is the network of green spaces and water systems within both public and private ownership, that deliver multiple environmental, economic and social values and benefits to urban communities. It extends beyond physical vegetative structures (such as the urban forest) and includes natural and semi-natural systems as well as the management and integration of various components of urban environments.

Greener Places (the draft green infrastructure policy by Government Architect NSW, 2017) and the *Greater Sydney Region Plan* and *North District Plan* highlight the importance of planning for, protecting, creating and maintaining green infrastructure within Greater Sydney. This planning framework has sought to protect and improve Sydney's network of water related systems (our Hydrological Grid), biodiversity and urban forest (our Ecological Grid) and passive and active recreation and transport (our Recreational Grid).

The *Greater Sydney Region Plan's* vision for the Eastern Harbour City (including Ku-ring-gai) is for improved access to foreshores, waterways and the coast for passive and active recreation, tourism, cultural events and water-based transport. This vision is to be achieved through implementation of the Sydney Green Grid, providing a network of water related systems (our Hydrological Grid and green spaces (our Ecological Grid), that will connect communities (through our Recreational Grid) to green infrastructure.

Improved access and connections from Ku-ring-gai's Local Centres to nature /green infrastructure is increasing important, as the number of people living in high density dwellings increases. There is significant opportunity for local residents and visitors to walk or cycle via a network of streets and parks to bushland areas given that all centres, with the exception of Wahroonga and Pymble, are within a 1km walk of a natural area.

The Ku-ring-gai LGA provides extensive walking trails traversing bushland reserves and connecting with the adjoining National Park trails. Iconic walks within the LGA include:

- Grosvenor Street to Gwydir Avenue;
- Darri Track;
- Ku-ring-gai Creek to Fern Tree Gully;
- Bungaroo Track;
- Koola Park to Rocky Creek Track;
- Two Creeks Track;
- Little Digger Track;
- Little Blue Gum Creek;
- Blackbutt Creek;
- Sheldon Forest;
- STEP Track; and
- Twin Creeks & Browns Field

While extensive planning has been undertaken for recreation in natural areas there is a gap in the provision of marked recreational trails leading from the Local Centres and rail stations to the bushland reserves via local streets and parks. Currently council only has one marked track from Lindfield Station to the Two Creeks Track which starts in Seven Little Australians Park.

Strategic response

To inform assessment, prioritisation and implementation of these Sydney Green Grid and Local Green Grid connections, Council will investigate the creation of a Green Grid Strategy. This strategy will consider bikeways, pedestrian facilities, walking tracks, fire trails and footpath network improvements having regard for the access, transport, health and recreational needs of the community.

The strategy will include an analysis of opportunities, constraints and required actions, regarding implementation of the:

- Sydney Green Grid, including the following key projects
 - Sydney Green Grid Project 16 Pacific Highway Urban Transformation. This includes Councils projects within the Local Centres along the Pacific Highway:
 - i. the Linfield Village Green project which comprises turning an at grade public carpark into a public park, and providing basement carparking beneath,
 - ii. Lindfield Community Hub and Turramurra Community Hub projects which include the provision of new public parks as well as
 - iii. tree planting and greening within the Local Centres and other areas along the highway and rail corridor.
 - Sydney Green Grid Project 33 – Pacific Highway Centres – Open Spaces and Green Links which seeks to provide a connection through urban areas (including town centres) to open space and bushland on either side of the Pacific Highway.
 - Sydney Green Grid Project 4 – Lane Cove River and Lane Cove National Park – Priority Corridor 1 - which includes open spaces along the Lane Cove River foreshores to create unique recreational experiences, linking the Lane Cove National Park to Macquarie Park, Macquarie University, Chatswood and Epping. Further work on this project is required to inform feasibility and create design options to improve track accessibility under wet conditions along the Browns Waterhole walking and cycling track, North Epping and South Turramurra. Preliminary investigation has been undertaken regarding improved flood mitigation and accessibility options over a heavily used crossing point of the Lane Cove River, linking Ku-ring-gai and Ryde local government areas and connecting the Great North Walk.
- Ku-ring-gai Local Green Grid connections – shown on the map *Green Grid*

These Green Grid connections have sought to address connectivity shortcoming, identified within the Ku-ring-gai Biodiversity & Riparian Lands Study 2016²⁵; including that:

- There is no continuous, good condition vegetation/habitat crossing the urban area of Ku-ring-gai in either a north-south or east-west direction
- Middle Harbour valley (including Garigal National Park) is considered to be poorly connected to surrounding bushland; including Ku-ring-gai Chase National Park to the north (connectivity is highly compromised by Mona Vale Road).
- The Lane Cove Valley bushland (including Lane Cove National Park) is not connected to adjacent protected areas or reserves, including bushland in the Berowra Valley in the Hornsby and Ryde local government areas.

The Green Grid Strategy will include further consideration of:

- Walking track links to improve connections between Local Centres and rail stations via a network of streets, private bushland and other agency lands and parks to bushland areas connecting with the Great North Walk and broader trail network along Lane Cove River, Middle Harbour and Cowan Creek – Refer to map *Green Grid – Walking*

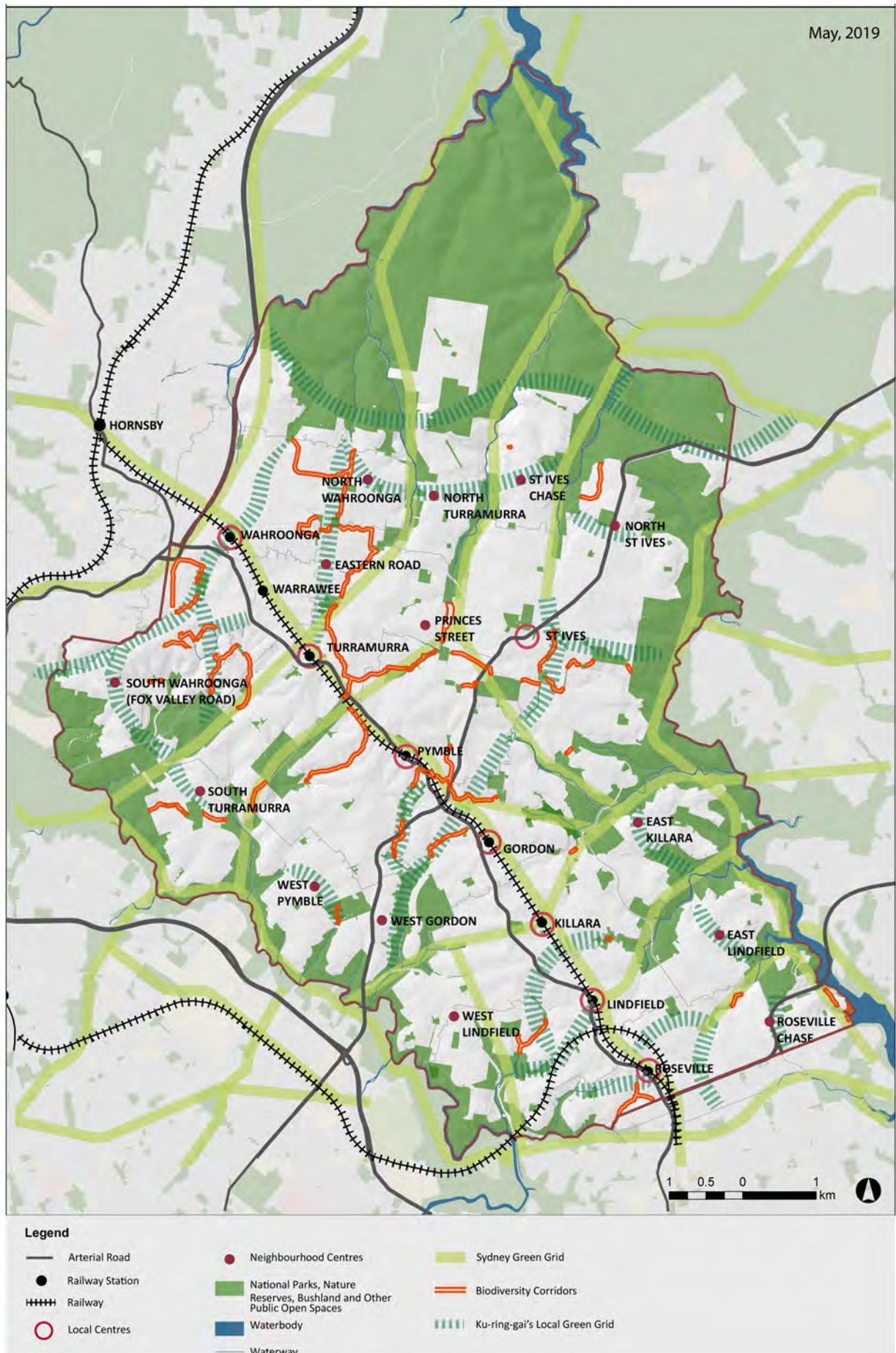
²⁵ http://www.kmc.nsw.gov.au/Plans_regulation/Building_and_development/Town_Planning_documents/Supporting_documents

- Walking track connections from the St Ives Showground Precinct with Brooklyn, Bobbin Head and West Head, linking with existing National Parks infrastructure and walking trails as identified within the Destination Management Plan 2017 -2020.
- Opportunities to combine recreation and transport with Biodiversity corridors (as identified within Council's DCP Greenweb Map and LEP Terrestrial Biodiversity Map) – Refer to map *Green Grid*
- Opportunities to improve biodiversity and recreational disconnect caused by main roads (in particular Ryde Road, The Comenarra Parkway and Mona Vale Road). Refer to Bushland and Biodiversity Planning Priorities K28 and K29 for more information,
- Opportunities and priorities to enhance a variety of open spaces; improve streetscapes; connect with local European heritage and Aboriginal cultural heritage, undertake street tree planting.

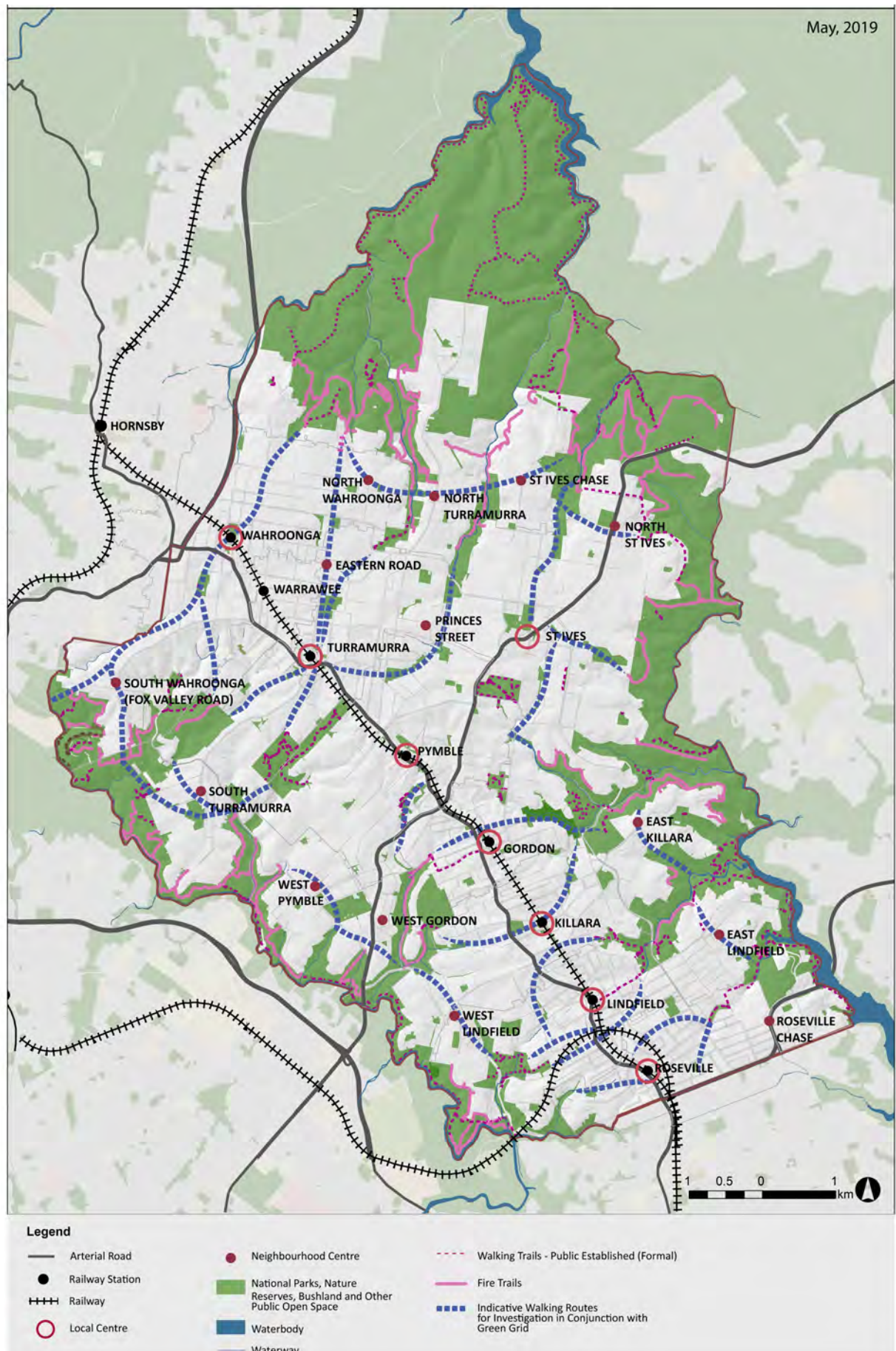
The Green Grid Strategy, planning and implementation will be integrated with other Ecological Grid and Hydrological Grid projects within Ku-ring-gai, and the broader North District, and will inform and be informed by priority actions identified within Urban Forest (Planning Priorities K30 and K31), Bushland and Biodiversity (Planning Priorities K28 and K29), Climate Change Resilience and Adaptation (Planning Priorities K39 and K40) and Water Sensitive City (Planning Priorities K35, K36, and K37).

Ku-ring-gai Council	Ku-ring-gai Local Planning Priorities
	<i>K32. Protecting and improving Green Grid connections</i>
	<i>K33. Providing a network of walking and cycling links for leisure and recreation</i>
	<i>K34. Improve connections with natural areas including river and creek corridors, bushland reserves and National Parks</i>
	Actions <ul style="list-style-type: none"> ➤ Investigate and deliver the Sydney Green Grid and Ku-ring-gai Local Green Grid, including collaboration with other agencies, Councils and private landholders (<i>medium term</i>) ➤ Investigate the creation of Green Grid Strategy that: <ul style="list-style-type: none"> - Refines Sydney Green Grid and Ku-ring-gai Local Green Grid opportunities, constraints and required actions - identifies walking and cycling routes from connecting Local Centres with nearby parks and natural areas, walking track connections from the St Ives Precinct with existing National Park walking trails, including improved biodiversity connections and green infrastructure (<i>medium term</i>) ➤ Update Ku-ring-gai Bicycle Plan to include outcomes from the Green Grid Strategy (<i>medium term</i>)
North District Plan	Planning Priority N19 Increasing urban tree canopy cover and delivering Green Grid connections
Greater Sydney Region Plan	Objective 32 The Green Grid links parks, open spaces, bushland and walking and cycling paths

Map – Green Grid



Map – Green Grid - Walking



Water Sensitive City

Ku-ring-gai Local Planning Priorities

K35. Protecting and improving the health of waterways and riparian areas

K36. Enhancing the liveability of Ku-ring-gai's urban environment through integrated water infrastructure and landscaping solutions

K37. Enabling water resource recovery through the capture, storage and reuse of water; alternative water supplies; and increased water efficiency

Background

The management of water in Sydney is separated by various legislative and administrative arrangements. Having traditionally focused on the management of stormwater to control flooding, Council's water management program has evolved over time into the coordinated management of all components of the water cycle, including water consumption, rainwater, stormwater, wastewater and groundwater, to secure a range of benefits for the wider community and our catchments.

Ku-ring-gai has been at the forefront of urban water management in a local government context. Ku-ring-gai was one of the first councils to incorporate controls for On Site Detention (OSD) into a water management Development Control Plan, to manage flash flooding from increased development and connectivity to the drainage system and adopted a Riparian Policy in 2004, which guided the management of waterways and riparian areas, including providing development controls for riparian setbacks.

In 2008, Council adopted an Integrated Water Cycle Strategy to guide the implementation of integrated urban water management within the Ku-ring-gai Local Government Area. The Strategy recognised the need for holistic management of all sources of water and the consideration of traditionally compartmentalised sectors (potable water, sewerage and stormwater) in an integrated manner, by managing local and regional water catchments through appropriate land use planning, including the use of water sensitive urban design (WSUD) and water harvesting and reuse to mitigate the impacts of urbanisation and improve the condition of our natural waterways.

Climate change is leading to disruptions of the water cycle and Ku-ring-gai's increasing population and the associated intensification of development continues to place further pressure on our water resources, as well as alter flow regimes caused by increased hard impervious surfaces and piped systems from development, impacting urban streams.

Ku-ring-gai's network of water related systems (our hydrological grid) includes 220 km of creeks with a large proportion remaining in semi-natural to natural condition, in private easements and public open space. This includes natural banks, intact riparian vegetation and minimal hard engineering. The condition of our creeks has a significant impact on water quality, riparian ecosystems and the receiving environments of Sydney Harbour and the Hawkesbury Estuary, to which all creeks within the Ku-ring-gai LGA flow. These water systems support a range of aquatic plants and animals, as well as providing the community with opportunities for recreation, tourism and water-based transport.

To improve community connection and access to green infrastructure (including our water related systems) and to support the creation and maintenance of open spaces that supports recreation, waterway health and biodiversity; the Greater Sydney Region and District Plans have identified a Sydney Green Grid (further addressed within the Green Grid Planning Priorities K32, K33 and K34).

Council's 2016 Water Sensitive City Policy adopts the management principles of a Water Sensitive City by responding to the issues of water conservation and water security, flooding risks, degradation of urban waterways and rising temperatures in a way that enhances the liveability of Ku-ring-gai.

Strategic response

Detached residential and multi-unit residential were the highest water users by sector in the Ku-ring-gai LGA for 2016/17, collectively representing 86.5% of total energy use. Non-residential – health, non-residential – retail and residential – attached represented the next largest water users.

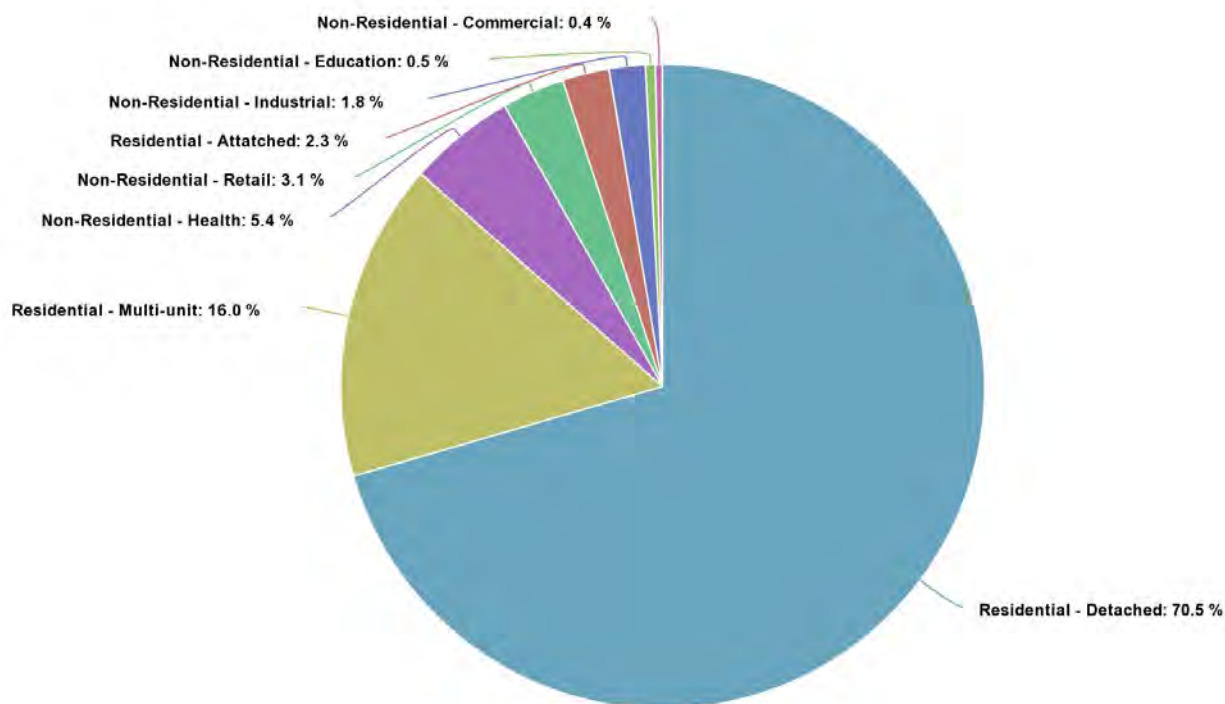


Figure 4-4 - All Water Use by Sector in the Ku-ring-gai Local Government Area for 2016/17 ²⁶

Hence, interventions affecting detached residential and multi-unit residential represent the greatest opportunity to achieve Ku-ring-gai's water management objectives.

To support Ku-ring-gai's Water Sensitive City Policy, Council is developing a Water Sensitive City Strategy. This Strategy will highlight the value of all forms of water as a resource and will implement a series of management actions to meet Ku-ring-gai's Water Sensitive City objectives, namely to:

- Protect, conserve and improve the condition of our waterways and riparian corridors, including native biodiversity
- Manage the quantity, frequency and quality of stormwater runoff to improve ecological stream health
- Reduce Council and the community's potable water use by diversifying water sources at different scales in fit-for-purpose applications and increasing water efficiency
- Deliver programs and interventions that support and enable a continued shift in the community to more water sensitive practices
- Integrate water infrastructure within the urban landscape to enhance the liveability of Ku-ring-gai, including stormwater treatment, flood protection, heat mitigation, ecological health, microclimate and landscape amenity

Interventions will focus on water sensitive approaches to strategic land use planning and urban design; the restoration of ecosystems; the use of alternative water sources for effective irrigation of

²⁶ Resilient Sydney Platform - www.resilientsydney.com.au

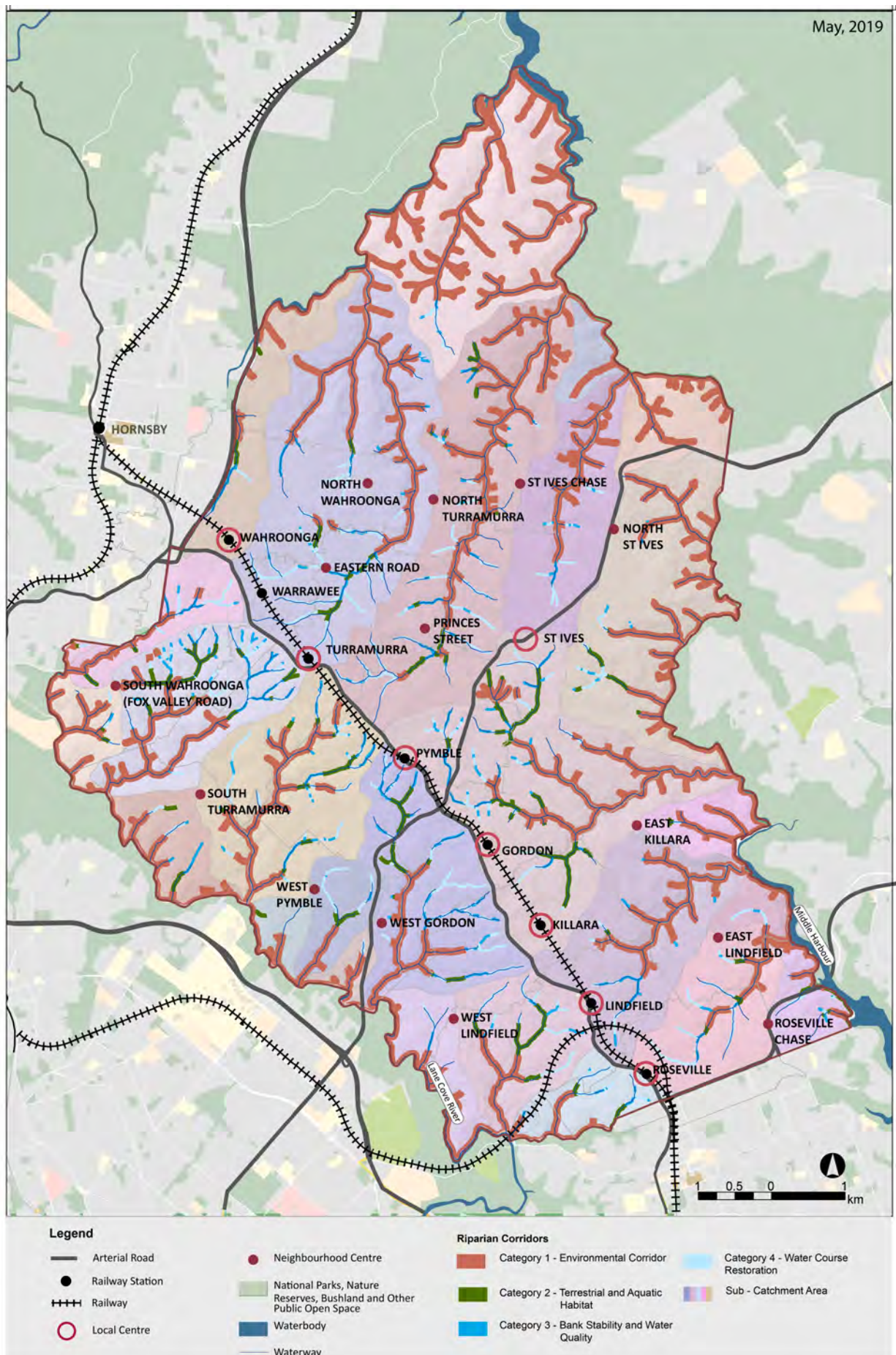
public open spaces to support public amenity and urban cooling and improvements in the resilience of local infrastructure; connecting people to local waterways and the celebration of cultural heritage as it relates to water; the engagement of Aboriginal leaders in the planning, design and implementation of actions designed to activate waterways and their surrounds; an increase in green infrastructure on public and private land; planning and developing high performing net zero energy, water and waste buildings; and the retainment of water in the landscape through permeable surfaces and an irrigated tree canopy.

The Strategy will continue to protect our hydrological grid through current riparian mapping and controls within the LEP and DCP. Council will seek to create cool, green links to waterways, open space and bushland for recreation through the realisation of Sydney's and Ku-ring-gai's Green Grid.

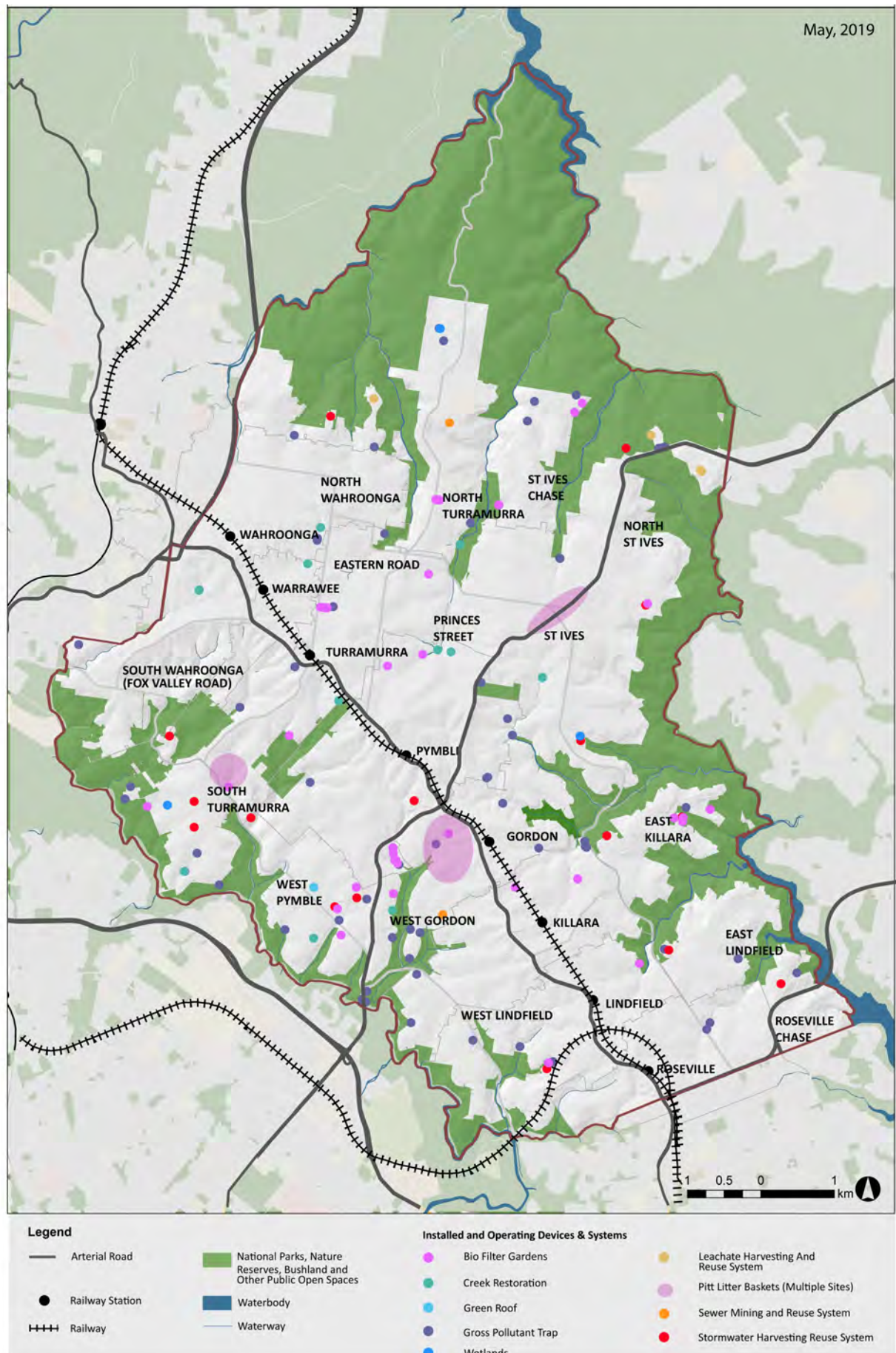
Ku-ring-gai's Water Sensitive City is further addressed in the Climate Change Resilience and Adaptation Planning Priorities K39 and K40, Urban Forest Planning Priorities K30 and K31 and Green Grid Planning Priorities K32, K33. and K34.

Ku-ring-gai Council	Ku-ring-gai Local Planning Priorities
	K35. Protecting and improving the health of waterways and riparian areas
	K36. Enhancing the liveability of Ku-ring-gai's urban environment through integrated water infrastructure and landscaping solutions
	K37. Enabling water resource recovery through the capture, storage and reuse of water; alternative water supplies; and increased water efficiency
North District Plan	Actions
	➤ Develop and implement a Water Sensitive City Strategy (<i>short term</i>)
	➤ Utilise the Water Sensitive City Strategy to inform future LEP / DCP controls (<i>short term</i>)
	➤ Prepare design guidelines for best practice urban water management (<i>medium term</i>)
Greater Sydney Region Plan	➤ Participate in regional and national urban water management collaborations and research opportunities to inform future LEP / DCP controls and guidelines (<i>ongoing</i>)
	➤ Review Riparian Lands Mapping to inform improvements to LEP / DCP riparian controls (<i>short term</i>)
	Planning Priority N15
	Protecting and improving the health and enjoyment of Sydney Harbour and the District's waterways
Greater Sydney Region Plan	Planning Priority N21
	Reducing carbon emissions and managing energy, water and waste efficiently
	Objective 25
	The coast and waterways are protected and healthier
Greater Sydney Region Plan	Objective 34
	Energy and water flows are captured, used and re-used
	Objective 38
	Heatwaves and extreme heat are managed

Map – Hydrological Grid – Catchment and Riparian Corridors



Map – Water Sensitive Urban Design (WSUD)



Map – Hydrological Grid



Energy and Greenhouse Gas Emissions

Ku-ring-gai Local Planning Priority

K38. Reducing Council's and the Ku-ring-gai community's greenhouse gas emissions to achieve net zero emissions by 2045 or earlier

Background

Climate change ranks amongst the most pressing issues facing our world and the way we live. It requires action and innovation from community, business and all levels of government. The warming of our climate system is unequivocal and since the 1950s many of the observed changes are unprecedented. Anthropogenic greenhouse gas (GHG) emissions are rising and are the dominant cause of warming, particularly from the burning of fossil fuels, such as coal, oil and gas, for energy use. The impacts of climate change are accompanied by far-ranging economic, environmental and social costs that will increase over time with higher levels of warming. The rate of increase in GHG emissions is proportionate to the rate of increase in the risk of climate related impacts; the higher the concentration of GHGs in the atmosphere the greater the likelihood and magnitude of impact.

Council has a responsibility to the Ku-ring-gai community to undertake activities that:

- Effectively reduce the degree of climate change that occurs (through mitigation)
- Reduce the vulnerability and increase the resilience of the built and natural environment, the community and the economy to the risks of climate change (through adaptation)

Council's most recent Climate Change Policy has been in place since 2015, providing a management framework to respond to the observed and projected implications of climate change on Ku-ring-gai's natural and built environment, community and economy. Council has adopted emission reduction targets that align to the Paris Agreement to limit global temperature increases to below 2°C and pursue efforts to keep warming below 1.5°C above pre-industrial levels, namely a reduction in Council's greenhouse gas emissions (GHG) from fixed assets, street lighting and vehicles of 20% by 2020, 50% by 2030 and 100% by 2045, based on 2000 levels.

Council's 2015 Greenhouse Gas (GHG) Reduction Action Plan supports the 2015 Climate Change Policy by providing a mitigation response to climate change and recommending abatement activities to enable Council to achieve its 2020 emission reduction target. Key activities delivered to date to achieve Council's 2020 target are: lighting, plant and equipment and air conditioning upgrades and energy management systems to improve the energy efficiency of Council's buildings and facilities; the installation of solar panels and solar hot water systems on Council's buildings and facilities; energy efficient street lighting upgrades; and the procurement of renewable energy from the grid.

In addition, Council offers a number of community rebates for the implementation of home energy solutions; including the installation of energy efficient pool pumps; solar panels and batteries; solar hot water systems; insulation; and window retrofits, which contribute to reducing the Ku-ring-gai community's carbon footprint.

At present the LEP provides a relatively weak framework to support the delivery of green buildings. The extent of the LEP reference to this issue is one 'Aim' which looks for development "to facilitate adaptation to climate change". In an effort to address large-scale development having the highest carbon footprint, Council's DCP mandates that all non-residential development is to incorporate Ecologically Sustainable Design (ESD) measures and achieve accredited Green Star ratings. To ensure the delivery of buildings with actual reductions in resource use, carbon emissions and building running costs, the DCP requires all non-residential buildings with a total gross floor area above 2,000sqm to obtain a baseline 4 Star Green Star certification and above 5,000sqm to obtain a 5 Star Green Star certification under the Green Building Council of Australia's (GBCA's) Green Star-Design & As Built rating tool. Council is not able to apply the same standards to large scale residential development, also recognised as having a significant carbon footprint, due to the operation of SEPP

(Building Sustainability Index: BASIX) 2004 which prevents standards above BASIX being mandated for residential development.

Strategic response

A report by Kinesis²⁷ prepared for the Greater Sydney Commission, provides technical evidence on how land use, transport and infrastructure planning can help reduce greenhouse gas emissions to support the NSW Government's aspirational long-term objective of achieving net-zero emissions by 2050.

The study highlights the impact of future housing distribution on Greater Sydney's greenhouse gas emissions and demonstrates the importance of place-based emission saving interventions in enabling Greater Sydney to support the NSW Government's aspirational long-term objective of achieving net zero emissions by 2050. Key findings from the study were:

- Interventions in land use, transport and infrastructure planning can enable Greater Sydney to reduce its overall emissions from energy, residential transport and waste by 50% by 2036. These interventions include both government and market-led strategies across building standards, renewable energy, transport infrastructure and increased waste diversion.
- Place-based interventions are needed that respond to local land use, infrastructure and transport patterns
- Greater Sydney is not a monoculture of density and both high density renewal areas and low density suburbs need to be part of the solution, with linkages between infrastructure delivery and housing and transport.

Electricity and transport represented the two greatest sources of emissions for the Ku-ring-gai LGA in 2016/17.

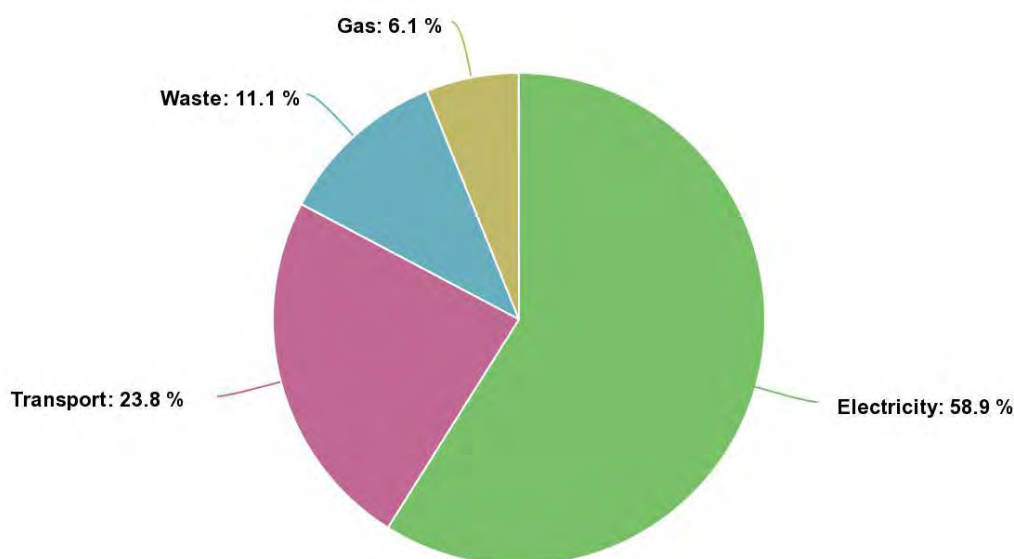


Figure 4-5 - Ku-ring-gai Local Government Area: All Emissions by Source for 2016/17 (scopes 1+2+3)²⁸

Detached residential and multi-unit residential were the highest energy users by sector in the Ku-ring-gai LGA for 2016/17, collectively representing 68.5% of total energy use. Non-residential – commercial, non-residential – health and non-residential – industrial represented the next largest energy users.

²⁷ Kinesis (October 2017) *Exploring Net Zero Emissions for Greater Sydney*

²⁸ Resilient Sydney Platform - www.resilientsydney.com.au

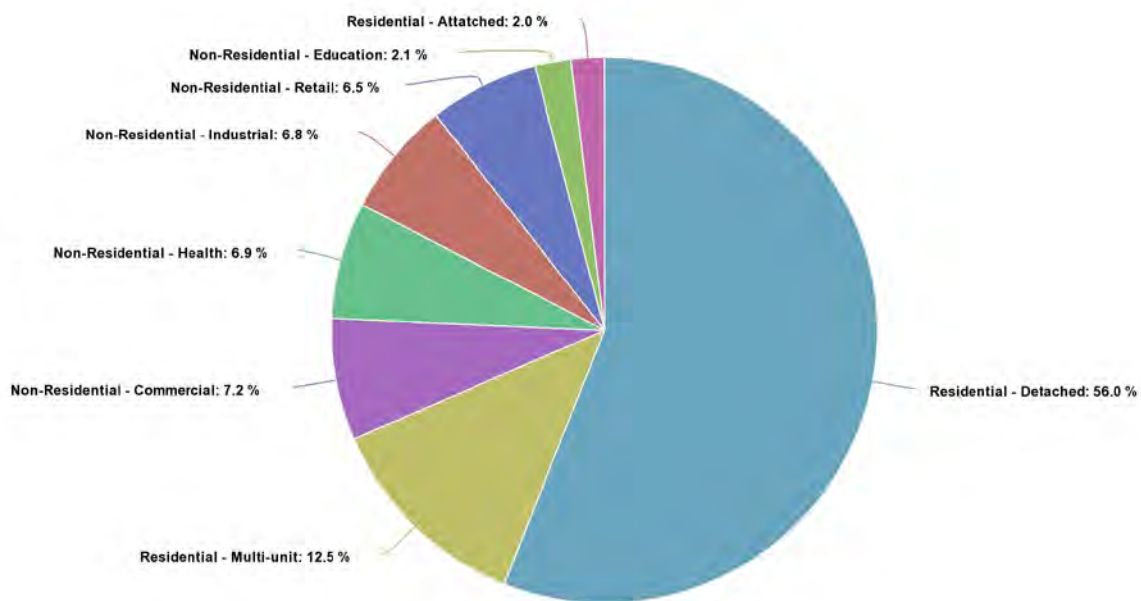


Figure 4-6 - All Energy Use by Sector in the Ku-ring-gai LGA for 2016/17²⁹

Hence, interventions affecting the electricity used in detached residential and multi-unit residential represent the greatest opportunity to achieve Ku-ring-gai's energy and greenhouse gas management objectives, as well as interventions that reduce transport emissions.

An emissions reduction pathway developed for Ku-ring-gai Council shows the greenhouse gas emission reduction potential from a series of interventions relating to land use, transport and infrastructure. Cumulatively, the interventions can achieve a 37% reduction in Ku-ring-gai's emissions by 2036.



Figure 4-7 - Emission reduction pathway to 2036 for Ku-ring-gai Local Government Area³⁰

Overall, more than half of the potential emission reductions are attributable to land use, transport and infrastructure planning interventions, including BASIX, new building standards, renewable energy, waste diversion, and transport and parking.

²⁹ Resilient Sydney Platform - www.resilientsydney.com.au

³⁰ Resilient Sydney Platform - www.resilientsydney.com.au

The biggest drivers of the reduction are installing building renewables, the impact of the 2020 Renewable Energy Target (RET), implementing residential retrofits and higher waste diversion.

These interventions fall short of the action required for Council to meet its current and any future net zero emissions target. Building on the interventions outlined in Ku-ring-gai's emission reduction pathway to 2036, Council will soon be reviewing its Climate Change Policy and revising its GHG emission reduction targets, as well as developing a *Towards Net Zero Emissions Plan 2020-2030*, in order for Council to achieve its revised 2030 GHG emission reduction target and work towards achieving its net zero emissions target.

To improve the delivery of large-scale buildings whose design, construction and operation deliver measurable and reduced carbon footprints, amendments to the LEP will seek to include further LEP clauses to strengthen the delivery of the current DCP requirements for certified Green Star non-residential buildings and enable the incorporation and delivery of requirements for measurable sustainability outcomes for large scale mixed-use and residential flat buildings.

Local government, including Ku-ring-gai Council, will have an important advocacy role to play if Ku-ring-gai is to meet its GHG emission reduction targets, as many of the interventions on the pathway to net zero emissions are influenced by other levels of government. For example, higher BASIX targets and progressive improvements to the emissions intensity of the electricity grid beyond the existing Renewable Energy Target can play a significant role in delivering low emissions electricity to Greater Sydney and Ku-ring-gai.

Ku-ring-gai Council	<p>Ku-ring-gai Local Planning Priority <i>K38. Reducing Council's and the Ku-ring-gai community's greenhouse gas emissions to achieve net zero emissions by 2045 or earlier</i></p> <p>Actions</p> <ul style="list-style-type: none"> ➤ Develop and implement Council's revised Climate Change Policy and Towards Net Zero Emissions Plan 2020-2030 (<i>short term</i>). ➤ Revise Council's 2030 GHG emissions reduction target and net zero emissions reduction target (<i>short term</i>). ➤ Develop community greenhouse gas reduction targets and design interventions that enable a continued reduction in community energy use and greenhouse gas emissions in line with these targets. (<i>short term</i>) ➤ Seek to include new clauses in the LEP to reinforce the DCP requirements for green non-residential, mixed-use and large scale residential flat buildings, and to support the use of sustainable materials, finishes and landscape features across all high density built forms. (<i>short term</i>) ➤ Seek to include and incentivise Design Excellence Mechanisms in the LEP and DCP to deliver sustainable dwellings, mixed use and non-residential buildings. (<i>short term</i>) ➤ Facilitate the uptake of electric vehicles through provisions in the LEP / DCP (<i>short term</i>) ➤ Integrate sustainability measures, incorporating minimum performance standards, into Council's asset management program (<i>ongoing</i>) ➤ Continue to review Council's and the community's greenhouse gas emission reduction targets and trajectories, emissions budget and climate change mitigation activities based on the latest climate science and modelling. (<i>ongoing</i>)
North District Plan	<p>Planning Priority N21 Reducing carbon emissions and managing energy, water and waste efficiently</p>
Greater Sydney Region Plan	<p>Objective 33 A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change</p> <p>Objective 34 Energy and water flows are captured, used and re-used</p>

Climate Change Resilience and Adaptation

Ku-ring-gai Local Planning Priorities

K39. Reducing Council's, the community's and the natural and built environment's vulnerability and increasing its resilience to the impacts of climate change

K40. Increasing urban tree canopy and water in the landscape to mitigate the urban heat island effect and create greener, cooler places

Background

Recent climate-related extremes, such as heat waves, droughts, floods and bush fire, reveal that some ecosystems and many human systems are significantly exposed and vulnerable to current climate variability. The impacts of such events include altered ecosystems and terrestrial and freshwater species risk, disrupted food production and critical services, including power and water supply, damage to infrastructure and settlements and escalating costs of disaster recovery, and negative mental health and human well-being consequences, including morbidity and mortality.

The impact of rapidly warming conditions on biodiversity is a common problem for land managers across the world. Conserving biodiversity is critical for the health and wellbeing of a community, with carbon storage, forage production, enhanced water supply and quality, pollinator support and outdoor recreation as just a few of the ecosystem services that may be impacted with a decline in biodiversity.

Ku-ring-gai has particular geographical and societal vulnerabilities to extreme weather events, including extensive bush fire and flood prone land; and susceptible sectors of the community, including aged care institutions; seniors, particularly those living alone; childcare and day care groups; people with disabilities; and residents for whom English is a second language.

To complement Council's climate change mitigation program, discussed in the Energy and Greenhouse Gas Emissions Planning Priority K38. Council also undertakes a climate change adaptation program. Council's 2106 Climate Change Adaptation Strategy supports the 2015 Climate Change Policy by providing an adaptation response to climate change, through a series of prioritised adaptation controls to reduce Council's, the community's and the natural and built environment's vulnerability and increase its resilience to the impacts of more frequent and extreme weather events as a result of changing climate.

An integral part of the Strategy is the continuation of Council's Climate Wise Communities program, which aims to reduce community vulnerability and increase community resilience to the impacts of extreme weather events at a personal, property and neighbourhood level. The Strategy adopts a shared responsibility framework, with Council adopting a leadership role in building climate resilience into its operations, service delivery and that of the Ku-ring-gai community; and implementing adaptive management responses to address the impacts of climate change on Ku-ring-gai's biodiversity.

Floodplain risk management

To ensure Council staff, state emergency services and the community have a thorough understanding of local flood issues and potential solutions, Council is following the NSW Government's Flood Prone Land Policy and Floodplain Development Manual (2005). This is done through a floodplain risk management process (as shown in Figure 4-8)which involves the development of floodplain risk management studies and plans covering all three catchments and 28 sub catchments.



Figure 4-8 Floodplain risk management process

Extreme Heat and Urban Heat Island (UHI)

It is predicted that the average maximum temperature, frequency and duration of heatwaves within Ku-ring-gai will increase³¹. Heatwaves already have significant impacts on our people and city, including increasing energy use and peak demand, grid reliability and power failures, and increasing morbidity and mortality rates.

In addressing Ku-ring-gai's future urban growth, it is important to address current and predicted increase in heat, as urban development continues and temperatures increase with climate change.

Urban areas create their own microclimates through influencing the surrounding atmosphere and interacting with climate processes. This is known as the Urban Heat Island (UHI) effect, which results in higher air temperatures in urban areas than those in surrounding non-urban areas.

The UHI effect is worsened by development activities that reduce canopy and green space; increase hard surfaces that absorb heat, and where medium to high density development adds to the creation of street canyons that trap heat and increase night and day time temperatures. Increased urban densities and human activities such as traffic, industry and electricity usage, particularly air conditioning usage, generate additional heat, further exacerbating the UHI effect.

The map *Urban Heat Island (UHI) Summer 2015-2016* provides a picture of urban heat variations in 2016³². From this mapping it is clear that Ku-ring-gai's riparian corridors, urban forest and green space areas such as golf courses contribute significantly to mapped heat patterns. These areas have a cooling effect. Areas of increased urban densification, roads and less vegetated areas also contribute to the heat patterns, having a warming effect.

Within the LGA, areas of increased vulnerability to heat have higher concentrations of populations who are more sensitive, less adaptive and more exposed to the adverse effects of heat (such as very old, the very young and those with existing health conditions). Council will consider vulnerability to heat within future Council programs and planning controls.

Bush fire

Climate change will exacerbate a range of risks to urban, catchment and biodiversity values, including:

- Increases in fire weather conditions;
- Local fire activity (incidence and area burned) are predicted to increase substantially; and
- Management of changing ecosystem, including weather and carbon dioxide concentrations, influencing factors such as plant (fuel) growth and moisture (flammability).

Whilst prescribed burning provides a degree of reduced risk to life and property; a large increased in management effort (prescribed fire) may be required, to maintain the current level of bushfire risk,

³¹ Office of Environment and Heritage, NSW 2015a *NARCLiM*, <http://www.climatechange.environment.nsw.gov.au/Climate-projections-for-NSW/About-NARCLiM> accessed 02/06/15

³² Office of Environment and Heritage, 2016

in light of the increased risk due to climate change³³. This increase in management effort is both costly and resource intensive (e.g. water) and may increase pressures upon an already stressed environment; including air pollution, catchment health (such as erosion), biodiversity values sensitive to fire (such as hollows) and species / communities sensitive to fire intensity and severity.

As such it is important that other risk mitigation measures aimed at enhancing 'defensible space' and reducing vulnerability are considered; such as future town planning, building design and urban forest management (including private gardens and public open spaces).

Management of Bushfire is a shared responsibility. Ku-ring-gai is part of the Hornsby Ku-ring-gai Bushfire Management Committee, responsible for coordinating bushfire planning in the local area. To help reduce bushfire threat, council undertakes manual works including fire trails, walking tracks and fire break maintenance and conducts strategic hazard reduction burns and ecological burning. Ku-ring-gai Council maintains its own fire team enabling Council to support the Ku-ring-gai Bush Fire Brigade and Ku-ring-gai State Emergency Service.

Council has sought to incorporate bushfire risk planning within planning controls. This has included:

- Mapping of bushfire prone land within the LGA - *Ku-ring-gai's Bushfire Prone Land Mapping 2017*. First mapped in 2007 this mapping is required to be updated every five years.
- Identification of high bush fire evacuation risk areas (areas where future growth should be limited), including
 - *Ku-ring-gai Bush Fire Evacuation Risk Map (2008)* - This map is identified areas as SEPP Seniors Exclusion areas, due to being susceptible to evacuation difficulties in the event of bushfire due to limited egress and access, and limits development in accordance with the SEPP (Housing for Seniors and People with a Disability) 2004.
 - Use of E4 Environmental Living zones to properties located within *the Ku-ring-gai Bush Fire Evacuation Risk Map (2008)* and that did not meet Council's evacuation capacity criteria (refer to the Planning Proposal for the Deferred Areas³⁴)

Strategic response

Council will continue to implement and review the Climate Change Adaptation Strategy. Further interventions to address climate change resilience and to maintain and improve Ku-ring-gai's liveability are incorporated within Urban Forest Planning Priorities K30 and K31, Green Grid Planning Priorities K32, K33 and K34, Water Sensitive City Planning Priorities K35, K36, and K37 and Energy and Greenhouse Gas Emissions Planning Priority K38.

Floodplain risk management

Council is continuing to undertake Flood Studies and Risk Management Plans within all subcatchments of the LGA as per the floodplain risk management process (Figure 4-8). Refer to the map *Flood Risk Management* for current and planned studies. All floodplain studies and risk assessments are undertaken in consultation with the Office of Environment and Heritage and the Flood Risk Management Committee to ensure significant community consultation throughout the process.

Council is working towards having all current flood mapping and flood planning controls in the LEP / DCP. This will be informed by the completed flood studies and flood risk management plans, with additional flood information for other sub catchments being added as it become available.

³³ Ross Bradstock, Ian Davies, Owen Price and Geoff Cary, 2008. Effects of Climate Change on Bushfire Threats to Biodiversity, Ecosystem Processes and People in the Sydney Region.

³⁴ <http://leptracking.planning.nsw.gov.au/proposal/details.php?rid=2390>

Council will seek to address identified flood risks, through the investigation and where appropriate implementation of priority management actions identified within flood risk management studies.

Extreme Heat and Urban Heat Island (UHI)

Adaptation to increasing urban heat means building communities that are adapted and resilient to hot temperatures: buildings and precincts that utilise sustainable design principles; use less energy, water and waste; and utilising cool materials, greenery and water to help reduce local temperatures.

This will be further advanced through councils programs, public domain and open space management, which seeks to include:

- A review of council-owned assets across the Local Government Area for thermal comfort, climate adaptiveness and opportunities.
- Consideration of heat, in the design and development of Council parks, sport's field (including synthetic fields), open space, and facilities and for long term asset management considerations.
- Investigation of the increase use and replacement of impervious surfaces where practically feasible (for example in low traffic areas and through building setbacks).
- Investigation of verge plantings (green infrastructure) in priority heat areas to provide water retention opportunities, habitat, shade and cooling.

Council will investigate the use of development controls within the LEP / DCP to address urban heating, including:

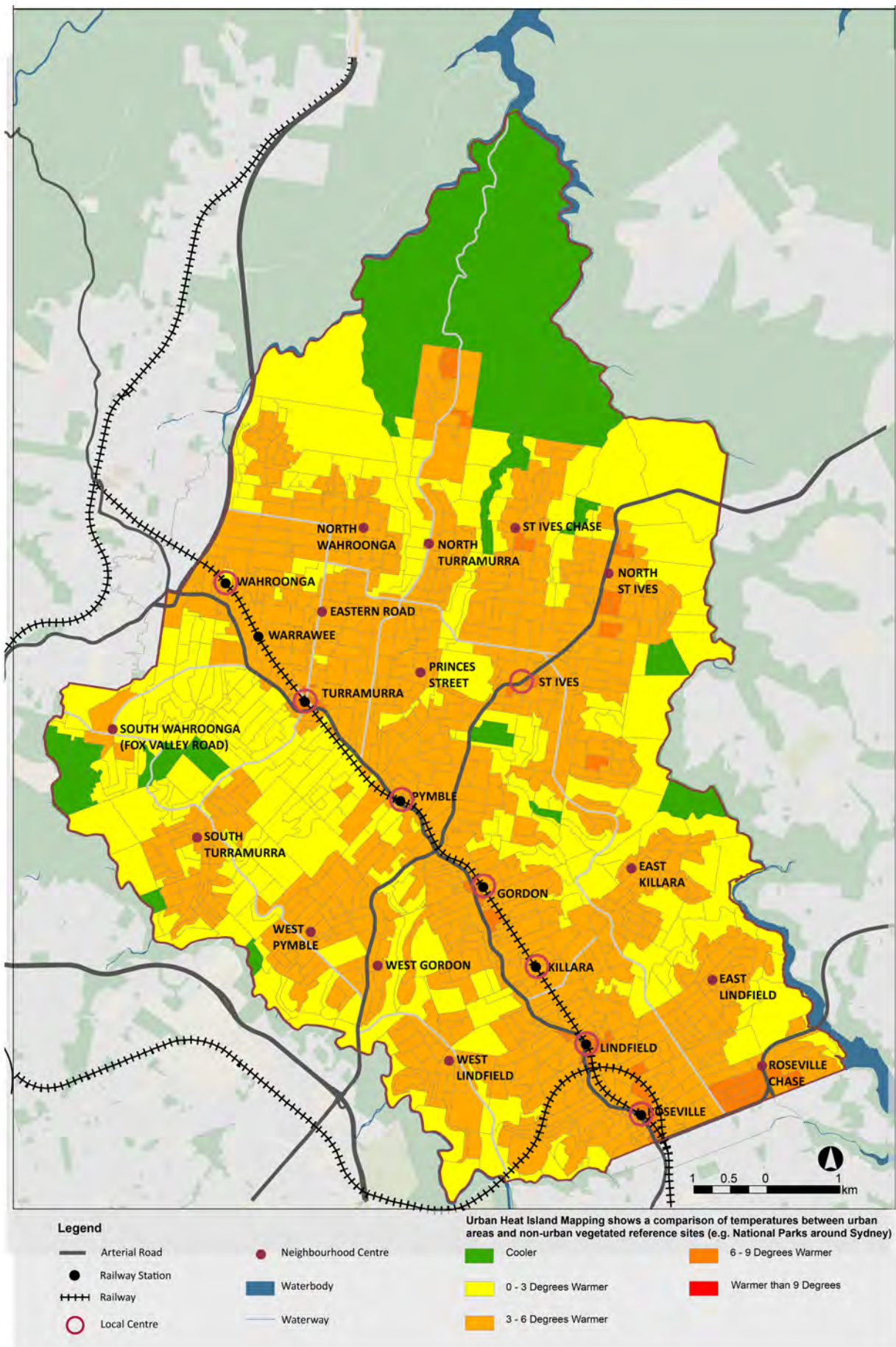
- Selection of built materials (including reflectivity of building roofs, paved and softfall surfaces, podiums and facades);
- Encouraging suitable wind flows and circulation through urban areas;
- Reducing the impacts of heat rejection sources of heating and cooling systems;
- Increasing use and protection of green infrastructure in the urban environment (including appropriate canopy species);
- Increasing shade to hard surfaced areas; and
- Increasing the use of WSUD principles and pervious surfaces to assist in the use and reuse of water for cooling in the urban environment.
- Collaboration with other agencies to build and strengthen partnerships and advocate for Basix to be updated and strengthened to incorporate urban heat and green infrastructure.

Bush fire:

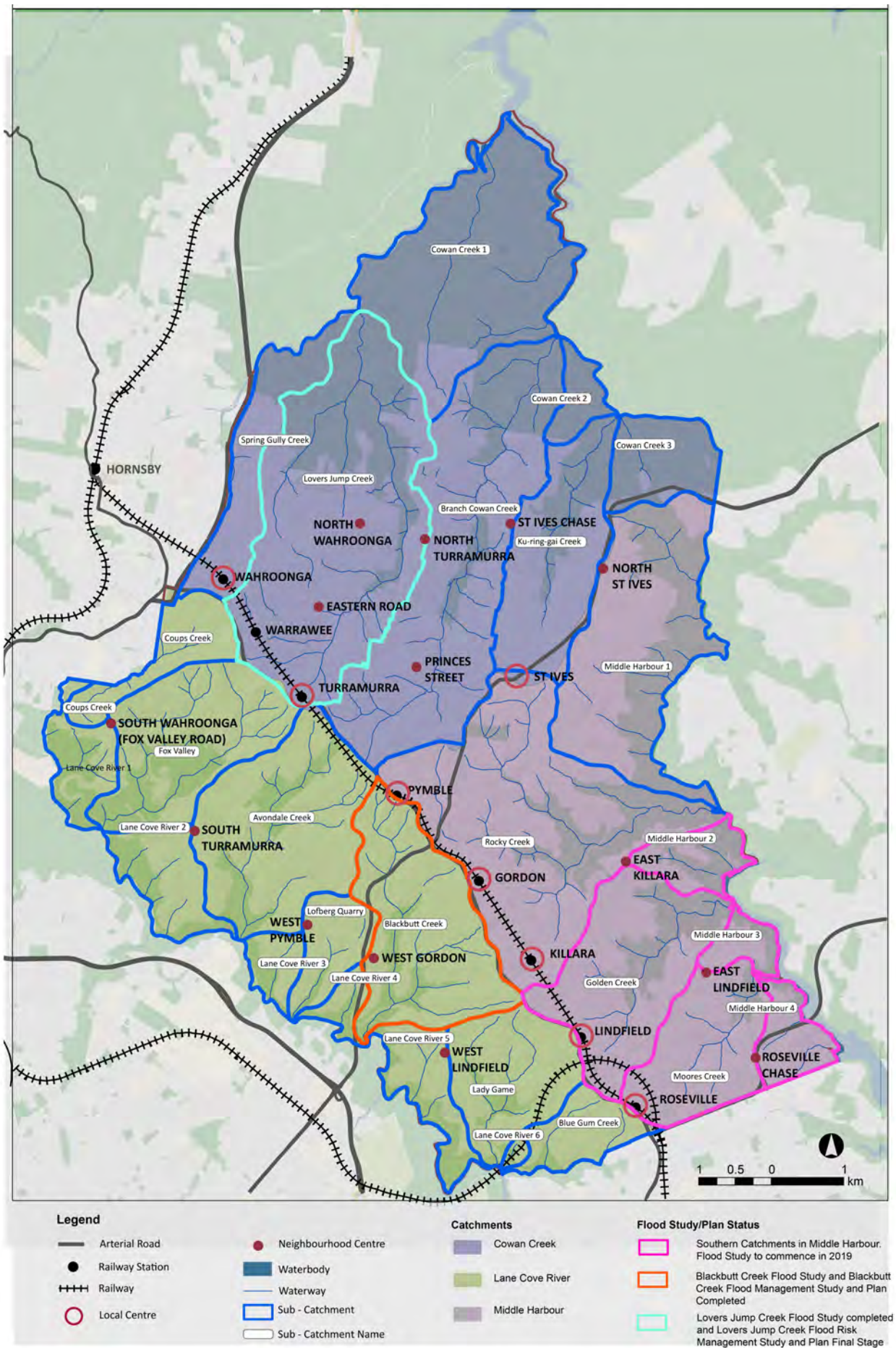
- Provide a best practice adaptive management approach to resilience management, including the integration of current legislation / guidelines / standards with scientific and on ground knowledge.
- Work with the NSW Rural Fire Service on the evaluation of bushfire evacuation risk, monitor changes to a the urban forest, land use type / densities and road networks to further inform future bushfire planning controls such as zoning, bushfire LEP and DCP controls and Ku-ring-gai Bush Fire Prone Land and Bush Fire Evacuation Risk Mapping.

Ku-ring-gai Council	<p>Ku-ring-gai Local Planning Priorities</p> <p>K39. Reducing Council's, the community's and the natural and built environment's vulnerability and increase its resilience to the impacts of climate change</p>
	<p>K40. Increasing urban tree canopy and water in the landscape to mitigate the urban heat island effect and create greener, cooler places</p>
	<p>Actions</p> <ul style="list-style-type: none"> ➤ Review and implement revised Climate Change Adaptation Strategy (<i>medium term</i>) ➤ Integrate climate resilience measures, incorporating minimum performance standards, into Council's asset management program (<i>ongoing</i>) ➤ Complete flood studies and Flood risk management plans for all catchments within the LGA. (<i>ongoing</i>) ➤ Investigate and where appropriate implementation of priority management actions identified within flood risk management studies (<i>ongoing</i>) ➤ Include flood mapping and flood planning controls in the LEP / DCP (<i>short term</i>). ➤ Investigate the inclusions of urban heat provisions in LEP / DCP (<i>short term</i>) ➤ Investigate design guidelines for best practice urban heat management (including appropriate materials and surface treatments and urban cooling mechanisms (<i>medium term</i>)) ➤ Collaborate with other agencies to build and strengthen partnerships and advocate for Basix to be updated and strengthened to incorporate urban heat and green infrastructure. (<i>ongoing</i>) ➤ Update the Ku-ring-gai Bushfire Prone Land Mapping (reviewed every five years from 2017) (<i>ongoing</i>) ➤ Continue to work with the NSW Rural Fire Service on the evaluation of bushfire evacuation risk, to inform future investigation of LEP and DCP planning controls and the Bush Fire Evacuation Risk Mapping. (<i>medium term</i>)
North District Plan	<p>Planning Priority N22</p> <p>Adapting to the impacts of urban and natural hazards and climate change</p>
Greater Sydney Region Plan	<p>Objective 7</p> <p>Communities are healthy, resilient and socially connected</p> <p>Objective 36</p> <p>People and places adapt to climate change and future shocks and stresses</p> <p>Objective 37</p> <p>Exposure to natural and urban hazards is reduced</p> <p>Objective 38</p> <p>Heatwaves and extreme heat are managed</p>

Map – Urban Heat Island (UHI) - Summer 2015-2016



Map – Flood Risk Management



Implementation

Implementation

The Ku-ring-gai LSPS sets out the long term land use vision for the Ku-ring-gai local government area over a 20 year horizon and the planning priorities and actions required to achieve that vision.

The implementation of the Ku-ring-gai LSPS will be an ongoing program of work through the delivery of the identified actions. The actions contained within the Ku-ring-gai LSPS will be assigned a delivery timeframe, in order to allow ongoing monitoring of the Ku-ring-gai LSPS implementation and to assist with future planning:

- **Short – 2 years**
This will align with the required LEP Amendment in 2021 to give effect to the LSPS and *North District Plan*.
- **Medium – 3-5 years**
This will align with the planned first review of the Ku-ring-gai LSPS.
- **Long 10+ years**
- **Ongoing**

In order to realise the future land use vision for Ku-ring-gai, a number of amendments to Council plans and policies, which provide the delivery framework for Councils strategic planning, will be required. The Ku-ring-gai LSPS, and associated strategies such as the Housing Strategy, will guide the update to the Local Environmental Plan (LEP) and other strategic planning documents such as the Development Control Plan (DCP) and Contributions Plans in order to 'give effect to' the *North District Plan*.

Integrated planning and reporting framework

The Integrated Planning and Reporting (IP&R) framework is the central planning framework for councils, required under the Local Government Act. It assists councils in making decisions, allocating resources and achieving their community's priorities. The major policy document under the framework is the *Community Strategic Plan* (CSP) which sets out the priorities and aspirations of the community, and the broader strategic direction of the LGA.

The CSP must have regard to economic, social, environmental and governance matters, and to identify the main priorities and aspirations of the community. These aspirations are then reflected in Council's suite of strategic plans which include land use strategies and plans, economic development strategies and cultural plans. These are then translated into specific actions in Council's four year delivery program and annual operational plan.

Land use priorities identified through this process are proposed to be expressed in the LSPS and implemented through the Local Environmental Plan and other mechanisms.

At the same time, priorities identified through studies and research undertaken as part of the LSPS process will inform the *Community Strategic Plan*.

Monitoring and reporting

Ku-ring-gai has a well-established, quality Integrated Planning and Reporting (IP&R) framework under the *Local Government Act 1993*.

It is proposed to use Council's existing IP&R framework for the purposes of monitoring and reporting on the LSPS. This will be through:

- Progress status reporting on specific land use related actions in Council's four year delivery program and annual operational plan
- Monitoring of relevant performance indicators within the CSP, Delivery Program and Operational Plan. Currently monitoring and reporting for the IP&R framework includes progress indicators - examples of which include:

- *Increasing trend in importance of Ku-ring-gai's unique visual character and identify to the community*
- *Increase in resident satisfaction with the protection of natural areas and bushland*
- *Increase in resident satisfaction with their ability to move in and around Ku-ring-gai*
- *Monitoring the number of businesses and workplaces in Ku-ring-gai*

These progress indicators are measured through a regular Community Satisfaction Survey and other data sources such as ABS Census Data, NIEIR, and Councils records

Reporting on overall progress of specified land use actions for the previous financial year as part of Council's Annual Report prepared under section 428 of the Local Government Act. This includes discussion of key achievements and challenges.

Review

Section 3.9 of the *Environmental Planning and Assessment Act 1979* requires that Local Strategic Planning Statements must be reviewed at least every 7 years.

Ku-ring-gai will commence its first full review of the LSPS in 2021 and again every 4 years in order to align the review period with Council's overarching *Community Strategic Plan* and IP&R framework.

This regular review will ensure the LSPS continues to reflect the views and priorities the community has for the future of Ku-ring-gai, and is aligned with the latest data and studies.

Indicators framework

The Greater Sydney Commission is developing the Greater Sydney Indicators Framework, which will establish a common set of indicators that operate at a regional, district and local level to monitor the delivery of *North District Plan* through all Councils Local Strategic Planning Statements.

Table of Alignment

The following table outlines the strategic links between the Ku-ring-gai Local Strategic Planning Statement, the Ku-ring-gai *Community Strategic Plan – Our Ku-ring-gai 2038* and the *North District Plan* Directions and Priorities.

Infrastructure and Collaboration		
District Plan Direction – A city supported by infrastructure		
North District Plan Priorities	Ku-ring-gai Community Strategic Plan Objective	Ku-ring-gai Local Planning Priorities
N1. Planning for a city supported by Infrastructure	T1. Integrated and accessible transport T1.1 A range of integrated transport choices are available to enable effective movement to, from and around Ku-ring-gai T3. Regional Transport Network T3.1 An accessible public transport and regional road network that meets the diverse and changing needs of the community P6. Enhancing recreation, sporting and leisure facilities P6.1 Recreation, sporting and leisure facilities are available to meet the community's diverse and changing needs P7. Enhancing community buildings and facilities P7.1 Multipurpose community buildings and facilities are available to meet the community's diverse and changing needs	K1. Providing well-planned and sustainable infrastructure to support growth and change
District Plan Direction – A collaborative city		
N2. Working through collaboration	N/A	K2. Collaborating with State Government Agencies, and the community to deliver infrastructure projects
Liveability		
District Plan Direction – A city for people		
North District Plan Priorities	Ku-ring-gai Community Strategic Plan Objective	Ku-ring-gai Local Planning Priorities

<p>N3. Providing services and social infrastructure to meet people's changing needs</p>	<p>C1. Community health and wellbeing</p> <p>C1.1 A equitable and inclusive community that cares and provides for its members</p> <p>P6. Enhancing recreation, sporting and leisure facilities</p> <p>P6.1 Recreation, sporting and leisure facilities are available to meet the community's diverse and changing needs</p> <p>P7. Enhancing community buildings and facilities</p> <p>P7.1 Multipurpose community buildings and facilities are available to meet the community's diverse and changing needs</p>	<p>K14. Providing a range of cultural, community and leisure facilities to foster a healthy, creative, culturally rich and socially connected Ku-ring-gai</p> <p>K17. Providing a broad range of open spaces, sporting and leisure facilities to meet the communities diverse and changing needs</p> <p>K18. Ensuring recreational activities in natural areas are conducted in harmony with the local environment and within ecological limits</p> <p>K19. Providing well maintained, connected, accessible and highly valued trail networks and recreational infrastructure where locals and visitors enjoy</p>
<p>N4. Fostering healthy, creative, culturally rich and socially connected communities</p>	<p>C2. Cultural diversity and creativity</p> <p>C2.1 A harmonious community that respects, appreciates, celebrates and learns from each other and values our evolving cultural identity</p> <p>C3. Community connectedness</p> <p>C3.1 A community where opportunities are provided for all voices to be heard and where community stewardship, participation and engagement is supported and promoted</p> <p>C4. Healthier lifestyles</p> <p>C4.1 A community that embraces healthier lifestyle choices and practices</p> <p>P6. Enhancing recreation, sporting and leisure facilities</p> <p>P6.1 Recreation, sporting and leisure facilities are available to meet the community's diverse and changing needs</p>	<p>K14. Providing a range of cultural, community and leisure facilities to foster a healthy, creative, culturally rich and socially connected Ku-ring-gai</p> <p>K15. Strengthening recognition and support for Aboriginal communities and cultural heritage</p> <p>K17. Providing a broad range of open spaces, sporting and leisure facilities to meet the communities diverse and changing needs</p> <p>K18. Ensuring recreational activities in natural areas are conducted in harmony with the local environment and within ecological limits</p> <p>K19. Providing well maintained, connected, accessible and highly valued trail networks and recreational infrastructure where locals and visitors enjoy</p>

		and connect with nature
District Plan Direction – Housing the city		
N5. Providing housing supply, choice, and affordability, with access to jobs, services and public transport	<p>C6. Housing choice and affordability</p> <p>C6.1 Housing diversity, adaptability and affordability is increased to support the needs of a changing community</p>	<p>K3. Providing housing close to transport, services and facilities to meet the existing and future requirements of a growing and changing population</p> <p>K4. Providing a range of diverse housing to accommodate the changing structure of families and households and enable ageing in place</p> <p>K5. Providing affordable housing that retains and strengthens the local residential and business community</p>
District Plan Direction – A city of great places		
N6. Creating and renewing great places and local centres, and respecting the District's heritage	<p>P1. Preserving the unique visual character of Ku-ring-gai</p> <p>P1.1 Ku-ring-gai's unique visual character and identity is maintained</p> <p>P2. Managing urban change</p> <p>P2.1 A robust planning framework is in place to deliver quality design outcomes and maintain the identity and character of Ku-ring-gai</p> <p>P3. Quality urban design and development</p> <p>P3.1 The built environment delivers attractive, interactive and sustainable livening and working environments</p> <p>P4. Revitalisation of our centres</p> <p>P4.1 Our centres offer a broad range of shops and services and contain lively urban village spaces and places where people can live, work, shop, meet, and spend leisure time</p> <p>P5. Heritage that is protected and responsibly managed</p>	<p>K12. Managing change and growth in a way that conserves and enhances Ku-ring-gai's unique visual and landscape character</p> <p>K13. Identifying and conserving Ku-ring-gai's environmental heritage</p> <p>K16. Protecting, conserving and managing Ku-ring-gai's Aboriginal heritage objects, items and significant places</p> <p>K6. Revitalising and growing a network of centres that offer a unique character and lifestyle for local residents</p> <p>K7. Facilitating mixed-use developments within centres that achieve urban design excellence</p> <p>K8. Promoting Gordon as the centre for business and civic functions and as the cultural heart of Ku-ring-gai</p> <p>K11. Promoting Lindfield as a thriving and diverse centre</p>

Draft Ku-ring-gai Local Strategic Planning Statement

	P5.1 Ku-ring-gai's heritage is protected promoted and responsibly managed	K10. Promoting Turramurra as a family focused urban village K9. Promoting St Ives Local Centre as an active green lifestyle and shopping destination
Productivity		
North District Plan Priorities	Ku-ring-gai Community Strategic Plan Objective	Ku-ring-gai Local Planning Priorities
District Plan Direction – A well connected city		
N12. Delivering integrated land use and transport planning and a 30minute city	T1. Integrated and Accessible Transport T1.1 A range of integrated transport choices are available to enable effective movement to, from and around Ku-ring-gai	K21. Prioritising new development and housing in locations that enable 30minute access to key strategic centres K22. Providing improved and expanded district and regional connection through a range of integrated transport and infrastructure to enable effective movement to, from and within Ku-ring-gai K23. Providing safe and convenient walking and cycling networks within Ku-ring-gai
N14. Leveraging inter-regional transport connections	N/A	N/A
District Plan Direction – Jobs and Skills for the city		
N7. Growing stronger and more competitive Harbour CBD	N/A	N/A
N8. Eastern Economic Corridor is better connected and more competitive	T1. Integrated and Accessible Transport T1.1 A range of integrated transport choices are available to enable effective movement to, from and around Ku-ring-gai	N/A
N9. Growing and investing in health and education precincts	N/A	K26. Fostering a strong local economy that provides future employment

		opportunities in Ku-ring-gai for both residents and workers within key industries
N10. Growing investment, business opportunities and jobs in strategic centres	E1.1 Ku-ring-gai is an attractive location for business investment E2.1 Key stakeholders have confidence in and pro-actively partner with Council to enhance employment and economic benefits	K26. Fostering a strong local economy that provides future employment opportunities in Ku-ring-gai for both residents and workers within key industries K25. Providing for the retail and commercial needs of the local community within Ku-ring-gai's centres
N11. Retaining and managing industrial and urban services land	N/A	K26. Fostering a strong local economy that provides future employment opportunities in Ku-ring-gai for both residents and workers within key industries
N13. Supporting growth of targeted industry sectors	E3 Tourism and Visitation Opportunities E3.1 Ku-ring-gai has a range of activities and experiences that attract visitors	K24. Diversifying Ku-ring-gai's local economy through expansion of tourism and the local visitor economy
Sustainability		
North District Plan Priorities	Ku-ring-gai Community Strategic Plan Priorities	Ku-ring-gai Local Planning Priorities
District Plan Direction – A city in its landscape		
N15. Protecting and improving the health and enjoyment of Sydney Harbour and the District's waterways	N3. Natural Waterways N3.1 Our natural waterways and riparian areas are enhanced and protected	K35. Protecting and improving the health of waterways and riparian areas K36. Enhancing the liveability of Ku-ring-gai's urban environment through integrated water infrastructure and landscaping solutions K37. Enabling water resource recovery through the capture, storage and reuse of water; alternative water supplies; and increased water efficiency

N16. Protecting and enhancing bushland and biodiversity	<p>N2. Natural Areas</p> <p>N2.1 Our bushland is rich with native flora and fauna</p>	<p>K28. Improving the condition of Ku-ring-gai's bushland and protecting native terrestrial and aquatic flora and fauna and their habitats</p> <p>K29. Enhancing the biodiversity values and ecosystem function services of Ku-ring-gai's natural assets</p>
N17. Protecting and enhancing scenic and cultural landscapes	<p>P1. Preserving the unique visual character of Ku-ring-gai</p> <p>P1.1 Ku-ring-gai's unique visual character and identity is maintained</p>	<p>K12. Managing change and growth in a way that conserves and enhances Ku-ring-gai's unique visual and landscape character</p> <p>K16. Protecting, conserving and managing Ku-ring-gai's Aboriginal heritage objective, items and significant places</p>
N18. Better managing rural areas	N/A	N/A
N19. Increasing urban tree canopy cover and delivering Green Grid connection	<p>P1. Preserving the unique visual character of Ku-ring-gai</p> <p>P1.1 Ku-ring-gai's unique visual character and identity is maintained</p>	<p>K30. Improving the quality and diversity of Ku-ring-gai's urban forest</p> <p>K31. Increasing, managing and protecting Ku-ring-gai's urban tree canopy</p> <p>K32. Protecting and improving Green Grid connections</p> <p>K33. Providing a network of walking and cycling links for leisure and recreation</p> <p>K34. Improving connections with natural areas including river and creek corridors, bushland reserves and National Parks</p>
N20. Delivering high quality open space	<p>P6. Enhancing recreation, sporting and leisure facilities</p> <p>P6.1 Recreation, sporting and leisure facilities are available to meet the community's diverse and changing needs</p>	<p>K27. Ensuring the provision of sufficient open space to meet the needs of a growing and changing community</p>
District Plan Direction – An efficient city		

N21. Reducing carbon emissions and managing energy, water and waste efficiently	N5. Sustainable Resource Management N5.1 A community progressively reducing its consumption of resources and leading in recycling and reuse	K38. Reducing Council's and the Ku-ring-gai community's greenhouse gas emissions to achieve net zero by 2045 or earlier
District Plan Direction – A resilient city		
N22. Adapting to the impacts of urban and natural hazards and climate change	C7 –Emergency Management C7.1 An aware community able to prepare and respond to the risk to life and property from emergency events N4. Climate change N4.1 A community addressing and responding to the impacts of climate change and extreme weather events	K39. Reducing Council's, the community's and the natural and built environment's vulnerability and increase their resilience to the impacts of climate change K40. Increasing urban tree canopy and water in the landscape to mitigate the urban heat island effect and create greener, cooler places



Ku-ring-gai Council

818 Pacific Highway, Gordon NSW 2072

Phone 02 9424 0000

Fax 02 9424 0001

Email kmc@kmc.nsw.gov.au

kmc.nsw.gov.au